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UPDATE TO THE MONTANA STATE AIRPORT SYSTEM PLAN

FEBRUARY, 1979

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ERRATA SHEET
FOR THE
MONTANA STATE AIRPORT SYSTEM PLAN UPDATE

Please note the following corrections to the text portion of this report:

pg. 3-8, paragraph 1:

Reference is made to the airport at Colstrip as "... a private strip owned by the Anaconda Company..."

This should read "... a private strip owned by the Montana Power Company..."

pg. 3-12, paragraph 4:

In reference to the Ekalaka Airport, the second sentence has been amended to read: "Due to its proximity to town and the state highway and certain other site constraints, the airport is now being considered for relocation.

pg. 4-1, paragraph 2:, sentence 3:

Amended as follows: "The five-year period has also seen the replacement of the Convair 580 used by Frontier Airlines in every city but Billings and West Yellowstone."

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U P D A T E

T O T H E

M O N T A N A S T A T E A I R P O R T S Y S T E M P L A N

The preparation of this document was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 13 of the Airport and Airway Development Act of 1970 as amended. The contents of this report reflect the views of the State of Montana and T.A.P., Inc., who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way consititute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with Public Laws 91-190, 91-258, and/or 90/495.

February, 1979

Prepared by:

Montana Department of Community Affairs
Division of Aeronautics
Helena, Montana

With the Consultant Assistance of:

T.A.P., Inc.
Aviation Consultants
315 Haggerty Lane
Bozeman, Montana 59715

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SUMMARY

This document is an update of key aspects of aviation activity in Montana addressed in the Montana State Airport System Plan published in June, 1974. One of the primary objectives of the MSASP was to formulate a recommended development or improvement plan, airport-by-airport, in accordance with anticipated user demands. Since that time, various facility improvements have been made, many of these in conjunction with other planning efforts such as master plans for individual airports. As a result, some airports (as well as the system as a whole) are now more capable of safely and efficiently accommodating traffic activity.

However, many improvements recognized as important to individual airports and to the system have not been accomplished for one reason or another. In the meantime, growth in activity at many Montana airports has occurred more rapidly than was anticipated in the original MSASP. Furthermore, significant changes are occurring in Montana's population and economic climate and in the regulatory framework of scheduled air carrier service in this country. These facts clearly pointed to the need to re-examine Montana's airport system and to update the information developed in the original MSASP.

As with the original plan, the most important output of the update is the formulation of airport improvement criteria and the subsequent development of a recommended needs plan outlining required airport improvements. Appendix A, which includes a five-year needs plan, is therefore the most important part of this update. Improvements needed at each airport are listed in detail; however, no cost estimates are provided. The appendix also presents airport forecast information for both general aviation and air carrier activities, as well as current base information for each airport.

The text portion of this update, (Chapters One through Four) provides support information for the five-year needs plan by assessing the impact of several important variables upon the aviation system in Montana. These chapters do not address all of the considerations in the original

MSASP, nor do they provide an in-debt analysis of all aspects of aviation activity within the state. The intent was to assess the variables believed to be most relevant in determining present and short-range facility needs. Included are discussions of socio-economic trends, current aircraft and operations data, analysis of the existing system, airspace utilization, nav-aid requirements, forecast aviation demand, airport protection and system needs. Special attention is given to energy development and its relationship to population growth, to national regulatory reform within the airline industry, and to how these considerations may impact the airport system.

Results and conclusions of the analysis are clear: there is an immediate need for many improvements to Montana's airports in order for the facilities to keep pace with growing demand. Within five years, improvements are needed at 53 of the state's 101 general aviation airports. 12 of the state's 15 air carrier airports are in need of major facility improvements within five years, and the remaining three should undergo minor improvements. The update also concludes that four new general aviation airports are needed at new locations, and four replacement airports should be built at locations which cannot be satisfactorily improved.

CHAPTER ONE

DATA COLLECTION AND INVENTORY

CHAPTER 1 - DATA COLLECTION AND INVENTORY

I. Socio-Economic Trends in Montana

In recent years, Montana has been an area of dynamics in population and economics. Nearly any economic indicator one might choose to examine at the state level would indicate a trend in the upward direction over the last five- to eight-year period. Growth in state employment, income, construction, sales, business, and other key characteristics has been a reflection of population growth resulting from net in-migration trends that began to become apparent in the early 1970's.

This section is a brief summary of socio-economic trends in Montana, intended only to provide evidence of a general nature relevant to directions and magnitudes of changes in Montana's socio-economic profile. Population trends are briefly traced through several decades, followed by a discussion of recent trends and a presentation of population projections as prepared by the Department of Community Affairs, Division of Research and Information Systems. Recent trends in two additional key indicators-employment and new business firms-are also discussed. This review of socio-economic characteristics provides relevant background data for two purposes: (1) to gain a better understanding of the socio-economic status of the state as a whole prior to examining aviation needs on a regional and local level, and (2) to serve as input into the aviation activity forecasting process.

A. Historic Population Trends

In its early years of statehood, Montana's population experience was one of heavy net in-migration and boom growth. In 1880, the state's population was about 39,000. An inflex of settlers seeking opportunities in farming and mining in the West led to a bulging population which reached 549,000 by 1920. Suddenly, a loss of economic opportunity in the early 20's led to a complete reversal of prior trends, and the state began to lose population due to massive out-migration. Most of the exodus was from the eastern part of the state, where crippling agricultural conditions made farm foreclosure almost a way of life. During the 20's, the state's population declined by 11,000 people, or two percent.

During this period of migration from farms, the more populated areas in the western part of Montana were undergoing the beginnings of an urbanization process. Many mountain cities actually gained population while the state as a whole declined.

During the 30's and 40's, urban centers in the state continued to grow, while rural areas in eastern Montana continued an already marked decline. Actually, what was occurring in Montana was representative of the same trend on a much broader scale in the Great Plains and Mountain States. Overall, the period 1930-1950 saw a steady but moderate statewide population growth from 538,000 to 591,000.

From 1950 to 1960, population growth continued, reaching 675,000 in 1960, an increase of 116,000 over the 1950 count. Demographic trends during this decade were characterized by a continued shift toward urban living, but were affected substantially by the buildup of military bases in Cascade and Valley Counties. In spite of the achievement of some growth, net migration in the 50's was still in the outward direction.

Out-migration continued into the 1960's, although many of the migrants leaving Montana were young (18-25) and were not moving large families with them. Migration out of Montana was compounded by the closing of the Glasgow Air Force Base and the decline in mining activities in Silver Bow County. Together, the two events accounted for nearly 58,000 people leaving the state during the 1960-1970 decade; consequently, total population essentially stabilized, realizing a net increase of only 19,000 persons in 10 years. Table 1-1 shows estimated Montana population each censal year since 1880.

B. Current Population Trends

During the 1970's, Montana has experienced a reversal in migration trends of previous decades; as a result, the state's total population growth has averaged about 1.5 percent per year. The trend in this country of movement out of large metropolitan areas into the cities and towns of the more

Table 1-1

MONTANA POPULATION, 1880 to 1970

Year	Estimated Total Montana Population	Percent Change by Decade
1880	39,000	-
1890	143,000	267%
1900	243,000	70%
1910	376,000	55%
1920	549,000	46%
1930	538,000	(2%)
1940	559,000	4%
1950	591,000	6%
1960	675,000	14%
1970	694,000	3%

sparcely populated regions of the west has been an important factor in recent migration and overall population patterns. With the exception of Billings, most of the in-migration has been into the communities of western Montana. If the state is examined with respect to growth in the plains vis-a-vis the mountain regions, the eastern regions appear to be growing at a rate comparable to other plains states such as the Dakotas and Nebraska, while the western parts of the state are experiencing growth comparable to other mountain areas such as Colorado and western Wyoming.

C. Population Projections

Recent trends in Montana population are expected to continue. In 1977, the Research and Informative Systems Division of the Montana DCA published a report which presents population projections for Montana to the year 2000. Projections were formulated using a model which was a county-based variation of the cohort-survival type.

Forecasts are presented in three series-high, medium, and low-which reflect various assumptions concerning future trends in the three basic factors of population change-births, deaths, and migration. In each series, it is assumed that the state will continue to show at net in-migration. From Table 1-2, it can be seen that the range of values represented by the high and low projections is wide, but that all three scenarios foresee continued growth. The high and low series are the resultant of past high and low growth patterns. The projected percentage rates of growth for the three series maybe found in Table 1-3, along with a comparison of growth rates for the U.S. The U.S. series is an update of population projections based upon current mortality trends. In comparing future population trends for Montana with those of the U.S., it is important to note that the medium series for Montana anticipates a more rapid growth than indicated for the total U.S. population.

D. Employment and New Businesses

Most sectors of the Montana economy have responded to the population growth by expanding to meet new demands. Personal income, retail sales and other monetary measures of economic growth in the 1970's have displayed upward trends, although data relative to these variables is not presented because the net effect is difficult to measure against inflation.

Two good indicators of the level of economic expansion that has accompanied population growth are employment and new business firms. Table 1-4 shows that the average annual employment in Montana, as reported by the Department of Labor and Industry, has increased steadily from 261,000 in 1970 to 321,000 in 1977. This translates to an average annual increase of three percent-twice the rate of growth of population.

Table 1-2

POPULATION PROJECTIONS FOR THE STATE OF MONTANA

	1980	1985	1990	1995	2000
Low Series	713,922	744,620	771,426	798,426	826,370
Medium Series	790,030	859,728	924,046	998,482	1,076,883
High Series	837,265	914,841	990,886	1,069,859	1,151,903

Table 1-3

PROJECTED GROWTH RATES FOR MONTANA AND THE U.S.

	Montana Series			U.S. Series		
Decade	High	Medium	Low	I	II	III
1970-1980	20.6%	13.3%	2.8%	10.3%	9.3%	8.6%
1980-1990	18.4%	16.7%	7.8%	13.7%	9.6%	7.0%
1990-2000	16.4%	16.4%	7.1%	11.0%	6.9%	4.0%

Source: Montana Department of Community Affairs, Division of Research and Information Systems, "Montana Population Projections, 1975-2000", August 1977.

Additional employment is being provided by expansions of existing businesses and by the appearance of new business firms. New businesses are being established at an increasingly rapid rate, as indicated by the numbers of starts shown in Table 1-5 for 1975, 1976, and 1977. Although net new businesses are not indicated since business failures are not known, this growth in new firms is a positive indicative of economic growth in Montana.

Table 1-4

AVERAGE ANNUAL EMPLOYMENT IN MONTANA, 1970-1977

1970	1971	1972	1973	1974	1975	1976	1977
261,171	265,011	277,270	288,567	301,878	301,961	312,000	321,000

Table 1-5

NEW BUSINESS FIRMS IN MONTANA, 1975-1977

1975	1976	1977
2,665	3,454	4,770

Source: Montana Department of Labor and Industry, Employment Security Division, "Montana Employment and Labor Force," July, 1978.

II. Aircraft and Operations Data

A. Air Carrier Enplanements

Passenger enplanements for each of the fifteen air carrier airports in Montana are shown in Table 1-6 for the years 1973-1977. This data provides a history of enplanements from the date of the original Montana Airport System Plan to the present. Since enplaned passenger traffic is comprised of persons originating an airline trip at a given airport as well as passengers connecting or transferring to a different flight, the numbers shown in the table represent a tally of all boarding traffic. The source of information is the FAA's Airport Activity Statistics of Certificated Route Air Carriers.

It is apparent from this data that air carrier passenger activity in Montana has been on the steady increase during the mid-1970's. Total enplanements for all fifteen cities increased 31 percent during the four-year period 1973 to 1977, from 584,000 to 763,000. With the exception of Miles City, all air carrier airports in the state boarded more passengers in 1977 than in 1973. The dominant influence in overall state trends was, of course, Billings, whose 325,000 enplanements in 1977 accounted for 43 percent of Montana's 763,000 enplanements, and whose 33 percent increase from 1973 to 1977 heavily weighted state-wide growth.

Many of the smaller eastern Montana cities showed large percentage growth over the four-year period, although the numerical increases were relatively small. Of the larger airports, Kalispell's growth at 142 percent was outstanding, and Bozeman registered an impressive 74 percent increase. On the other end of the spectrum, Great Falls managed a growth of only five percent, and Butte lagged far behind the state average with 11 percent.

B. Scheduled Air Carrier Routes

Community size is, of course, the key determinant of air passenger activity;

TABLE 1-6

MONTANA AIR CARRIER ENPLANEMENTS HISTORY

1973-1977

City	1973	1974	1975	1976	1977	% Increase (Decrease) 1973-1977
Billings	244,932	257,133	274,730	304,402	324,654	33%
Bozeman	33,324	39,079	43,825	49,665	58,064	74%
Butte	40,918	43,861	42,427	45,037	45,545	11%
Glasgow	1,841	1,987	1,890	2,342	3,340	81%
Glendive	749	903	895	906	889	19%
Great Falls	133,723	136,694	139,318	145,370	140,587	5%
Havre	451	527	552	930	893	98%
Helena	32,374	36,223	41,444	43,672	49,795	54%
Kalispell	14,530	18,771	26,424	32,736	35,200	142%
Lewistown	766	919	1,011	861	810	6%
Miles City	845	1,166	1,123	943	745	(12%)
Missoula	67,426	71,273	71,273	87,345	89,514	33%
Sidney	804	1,153	1,112	1,172	1,354	68%
West Yellowstone	9,965	9,668	9,492	9,978	10,060	1%
Wolf Point	931	1,298	1,394	1,340	1,132	22%
TOTAL	583,579	620,065	656,910	726,699	762,582	31%

Source: Federal Aviation Administration, Airport Activity Statistics of Certificated Route Air Carriers, 1973-1976; for 1977, airport and airline records provided the source.

the second most important factor is probably air service. Figure 1-1 presents a graphic illustration of present scheduled air carrier routes in Montana. The in-state segments of the routes of the state's four air carriers--Frontier, Northwest, Western, and Hughes Airwest--are based on the schedules as of July, 1978. More detailed routing information is itemized in Table 1-7, which shows the number of daily flights for each air carrier city, the carriers involved, and the flight itineraries. In terms of frequency as well as scheduling and service, the importance of Billings as the state's primary hubbing point is again evident.

III. Origin and Destination Information

In the airline industry, historic activity trends are measured not only in terms of enplaned passengers, but also by origin and destination passenger traffic. Origin and destination passengers (or O & D's) are all travelers beginning or terminating their air trip at a given airport. Unlike enplanements, O & D's do not include connecting passengers, i.e. those passengers transferring to a different flight enroute to another ultimate destination. Table 1-8 provides a history of O & D traffic dating back to 1961 for each of the state's 15 air carrier airports. The source of this information is a quarterly C.A.B. survey of traffic based upon a 10 percent sample of airline ticket coupons sold domestically.

Growth in O & D traffic since 1961 has, of course, been substantial; in 1977 there were more than five times as many O & D's for the Montana cities than in 1961. Any significant differences in growth of O & D's in comparison to enplanements is probably due to sampling errors and compilation procedural differences between the two sources of data.

Origin and destination statistics are valuable not only as an easily updateable source of information to describe growth in airline passenger traffic, but also as a tool for evaluating specific markets. Since O & D's are published between any two points in the U.S. having certificated airline service, a regional, state, or city market analysis can easily be made using data directly from the C.A.B. publications.

SCHEDULED AIR CARRIER ROUTES IN MONTANA

(JULY 1, 1978)

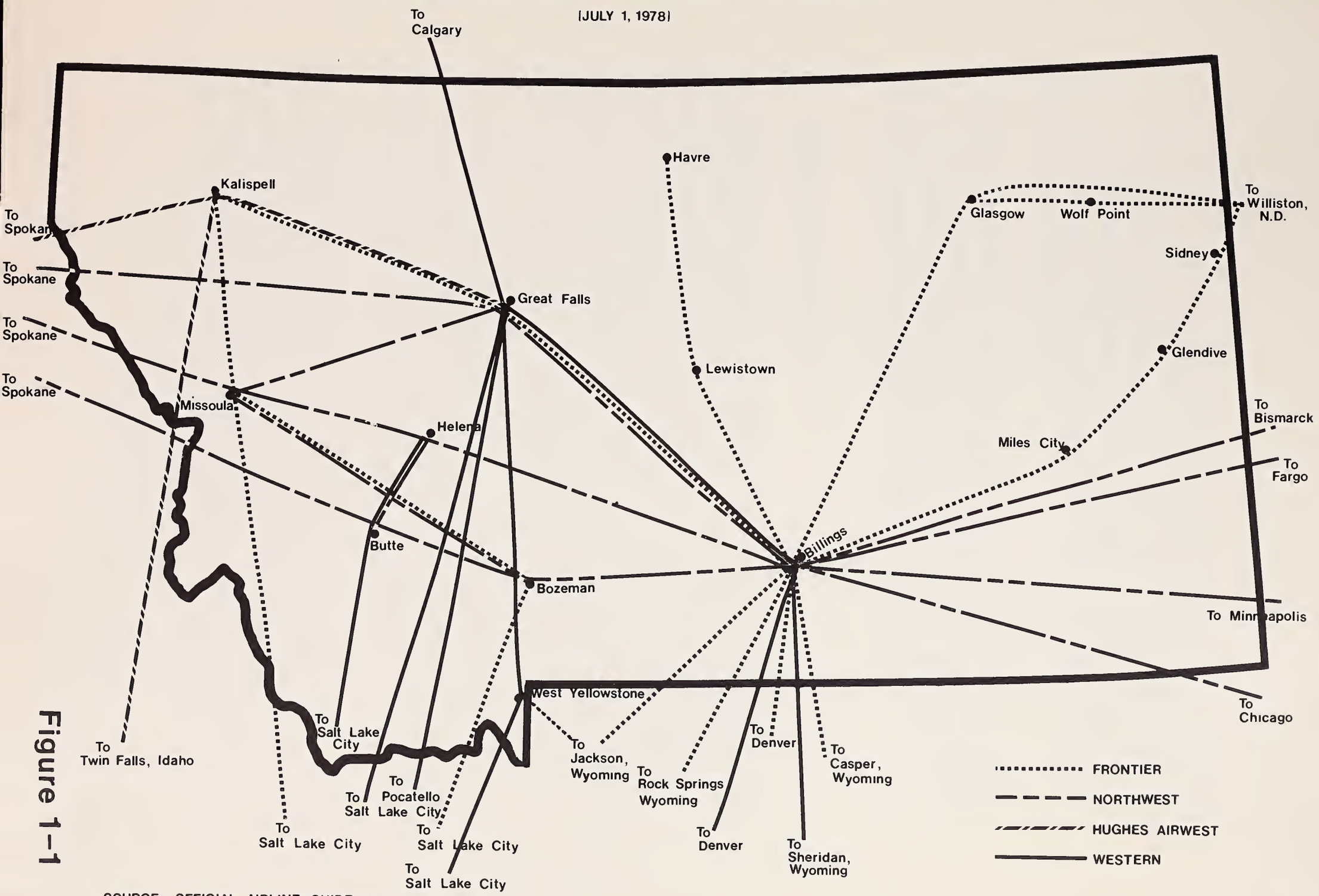

Figure 1-1

SOURCE: OFFICIAL AIRLINE GUIDE; July 1, 1978

This is done in Tables 1-9 through 1-23, which show the top city markets in 1976 for each air carrier city. These are the cities with which the most O & D passengers were exchanged that year. For example, the top O & D city in exchange with Billings was Denver (42,180 O & D's), which means that approximately 42,180 people began their trip in Billings destined for Denver or vice versa in 1976.

This data is important in identifying key communities of interest, although it is in part a reflection of airline service available. Its value in forecasting is in indicating possible service needs and evaluating potential new service in relationship to demand and established patterns.

IV. Airspace and Nav-Aids

The Federal Airway System is controlled by a network of Air Route Traffic Control Centers (ARTCC) throughout the United States, each with a designated area within which it is responsible for handling IFR traffic. Montana in its entirety falls withing the jurisdiction of the Salt Lake City ARTCC. The total region of responsibility for the Salt Lake City facility stretches from the Canadian border to southern Utah and Nevada. The region is divided into three areas of responsibility, Areas A, B and C. Montana falls within area A; refer to Figure 1-2. Each area is separated into sectors. The SLC ARTCC normally has 15 sectors. Most sectors have a high and low division of airspace. High altitude airspace for ARTCC purposes is defined as the 24,000' flight level and above. The low altitude airspace is from the surface to 23,999'. The SLC ARTCC has been experiencing an annual increase of traffic at a rate of 15%.

The ARTCC has furnished this planning effort the analysis of the center's operations count by individual sector. The analysis is compiled and tabulated on an hourly basis so it is possible to calculate the average daily total as well as to indicate the busy hour. This information is broken out for both high and low altitude operations in Table 1-24.

SALT LAKE CITY ARTCC AREA 'A'

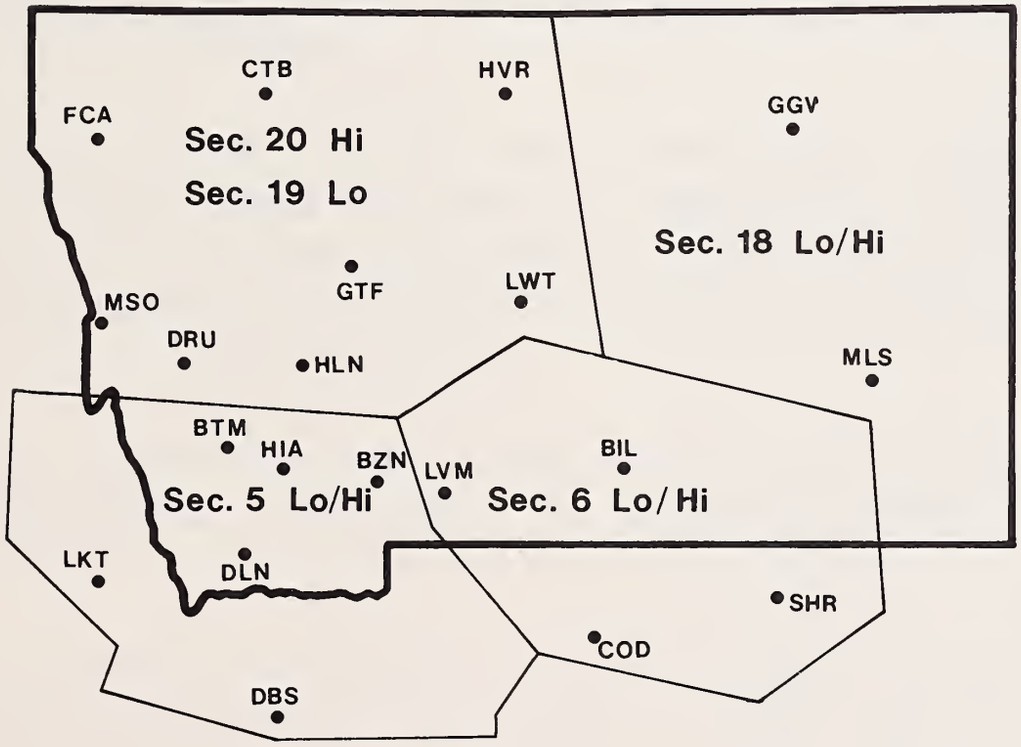

Figure 1-2

Within Montana the five sectors are Number 5 Low and High, Number 6 Low and High, Number 18 Low and High, 19 Low 20 High. Sectors 5 and 6 lie within Montana and Wyoming so it will not be possible to document the exact operations attributable to only that part of Montana. Sector 18 contains a part of Western North Dakota. The other sector is solely within Montana.

Sector 5 includes the activity handled through the VOR's at Butte, Whitehall, Bozeman and Dillon along with Dubois and Salmon, Idaho. Sector 6 includes Billings and Livingston along with Sheridan and Cody, Wyoming. Sector 18 contains Glasgow and Miles City along with Williston, North Dakota. Sectors 19 and 20 consist of the following stations: Lewistown, Helena, Drummond, Missoula, Great Falls, Havre, Cut Bank, and Kalispell.

It is interesting to note the obvious busy hours for high altitudes tends to be at 1200 hours or mid-day. The busy hour for the low altitude operations is between 9 and 10 a.m.

The busiest sector for total IFR traffic is Sector 6 which contains Billings. Sector 6 has an average daily operational count of 267. It also has the busiest hourly operations of 23 occurring at 9 a.m. The second busiest hour is in Sector 5 where the high and low flight level activity at 1200 hours have 21 combined operations.

The FAA monitors these activity levels carefully for the purpose of assigning adequate manpower to handle the traffic in the ARTCC at the critical times of the day.

Center personnel have indicated that, based on present records, additional airways in Montana do not seem justifiable. Naturally should the 15% annual growth continue, this will dictate the need for additional center personnel. An additional IFR airway may be necessary between Billings and Glasgow at some time during the 1980's.

The five-year period should also see a few additions to the system of nav-aids in the state. Presently, there are 13 VOR facilities, and 33 airports

are equipped with Non-Directional Beacons (NDB's), as indicated in Table 1-25. The system of VOR's provides adequate coverage with two exceptions: eastern Montana would be better served with the placement of a VOR at Glendive; and aircraft movements across southeastern Montana would justify a VOR to fill the void between Billings and Rapid City, South Dakota. The recommended site for this VOR is near Belle Creek. Activity forecasts would also indicate the need for six additional NDB's within five years. As shown in Table 1-25, these would be located at Ekalaka, Libby, Lincoln, Philipsburg, Stanford, and Stevensville.

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Billings

Flights	Itinerary
FL 80	GTF - BIL - DEN - ABQ - TUS - PHX
FL 86	FCA GTF - BIL - DEN
FL 88	COS - DEN- BIL - GTF
FL 108	PHX - DEN - BIL - GTF - FCA
FL 110	GEG - BIL - DEN - OKC - FOE - MCI
FL 117	MCI - DEN - BIL - GEG
FL 224	BIL - GGW - ISN
FL 225	BIS - ISN - OLF - GGW - BIL
FL 226	BIL - LWT - HVR
FL 227	MOT - ISN - SDY - GDV - MLS - BIL
FL 230	BIL - MLS - GDV - SDY - ISN - MOT
FL 231	ISN - GGW - BIL
FL 232	BIL - GGW - OLF - ISN - BIS
FL 233	HVR - LWT - BIL
FL 510	SLC - JAC - BIL
FL 511	BIL - JAC - SLC
FL 603	BIL - RKS - SLC
FL 624	SLC - RKS - BIL
NW 40	SEA - PDX - GEG - MSO - GTF - BIL - BIS - MSP
NW 62	PDX - GEG - BTM - BZN - BIL - FAR - MSP - DTW - PIT - DCA
NW 68	SEA - GEG - MSO - HLN - BIL - BIS - MSP - DCA
NW 69	DCA - MSP - BIL - BZN - BTM - GEG - PDX - SEA
NW 71	EWR - DTW - ORD - BIL - GTF - GEG - SEA
NW 72	SEA - GEG - GTF - BIL - ORD - DTW - EWR
NW 74	HLN - BTM - BZN - BIL - ORD
NW 103	BIL - HLN - BTM - GEG - PDX

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

Billings

Flights	Itinerary
NW 105	MSP - FAR - BIS - BIL - GTF - GEG - SEA
NW 106	PDX - GEG - GFT - BIL
NW 107	BIL - BZN - MSO - GEG - SEA
NW 108	SEA - GEG - MSO - HLN - BTM - BZN - BIL
NW 181	MSY - ORD - MSP - JMS - BIS - BIL - HLN - MSO - GEG - SEA
NW 234	MSO - GTF - BIL - MSP - LGA
NW 369	DCA - MSP - BIL - GTF - MSO
NW 707	FLL - ORD - MSP - BIS - BIL - BZN - BTM - HLN
WA 52	DEN - CYS - CPR - SHR - BIL
WA 53	BIL - SHR - CPR - CYS - DEN
WA 54	DEN - BIL - GTF
WA 55	GTF - BIL - DEN
WA 56	DEN - BIL
WA 491	BIL - DEN - SLC - OAK

Bozeman

FL 17	STL - DEN - SLC - BZN - MSO - FCA
FL 22	FCA - MSO - BZN - SLC - DEN - STL
FL 61	FSM - DFW - DEN - SLC - BZN - MSO
FL 64	BZN - MSO - SLC - DEN - MCI - JLN
FL 115	JLN - FOE - SLN - DEN - BZN - MSO - GEG
FL 118	GEG - MSO - BZN - DEN

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

Bozeman

Flights	Itinerary
NW 62	PDX - GEG - BTM - BZN - BIL - FAR - MSP - DTW - PIT - DCA
NW 69	DCA - MSP - BIL - BZN - BTM - GEG - PDX - SEA
NW 74	HLN - BTM - BZN - BIL - ORD
NW 107	BIL - BZN -MSO - GEG - SEA
NW 108	SEA - GEG - MSO - HLN - BTM - BZN - BIL
NW 707	FLL - ORD - MSP - BIS - BIL - BZN - BTM - HLN

Butte

NW 62	PDX - GEG - BTM - BZN - BIL - FAR - MSP - DTW - PIT - DCA
NW 69	DCA - MSP - BIL - BZN - BTM - GEG - PDX - SEA
NW 74	HLN - BTM - BZN - BIL - ORD
NW 103	BIL - HLN - BTM - GEG - PDX
NW 108	SEA - GEG - MSO - HLN - BTM - BZN - BIL
NW 707	FLL - ORD - MSP - BIS - BIL - BZN - BTM - HLN
WA 25	HLN - BTM - SLC - SFO
WA 116	LAX - SLC - BTM - HLN
WA 407	BTM - HLM - SLC - LAX
WA 493	DEN - SLC - BTM - HLN

Glasgow

FL 224	BIL - GGW - ISN
FL 225	BIS - ISN - OLF - GGW - BIL

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

Glasgow

Flights	Itinerary
FL 232	ISN - GGW - BIL
FL 233	BIL - GGW - OLF - ISN - BIS

Glendive

FL 227	MOT - ISN - SDY - GDV - MLS - BIL
FL 230	BIL - MLS - GDV - SDY - ISN - MOT

Great Falls

FL 80	GTF - BIL - DEN - ABQ - TUS - PHX
FL 86	FCA - GTF - BIL - DEN
FL 88	COS - DEN - BIL - GTF
FL 108	PHX - DEN - BIL - GTF - FCA
NW 40	SEA - PDX - GEG - MSO - GTF - BIL - BIS - MSP
NW 71	EWR - DTW - ORD - BIL - GTF - GEG - SEA
NW 72	SEA - GEG - GTF - BIL - ORD - DTW - EWR
NW 105	MSP - FAR - BIS - BIL - GTF - GEG - SEA
NW 106	PDX - GEG - GTF - BIL
NW 234	MSO - GTF - BIL - MSP - LGA
NW 369	DCA - MSP - BIL - GTF - MSO
RW 721	GTF - FCA - GEG - SEA
RW 828	SEA - GEG - FCA - GTF

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

Great Falls

Flights	Itinerary
WA 20	LAX - LAS - SLC - GTF - YYC
WA 22	LAX - SLC - GTF - YYC - YEG
WA 27	YEG - YYC - GTF - SLC - LAX
WA 29	YYC - GTF - SLC - LAX
WA 44	GTF - PIH - SLC - DEN
WA 45	DEN - SLC - PIH - GTF
WA 54	DEN - BIL - GTF
WA 55	GTF - BIL - DEN
WA 118	SLC - WYS - GTF
WA 415	GTF - WYS - SLC - ONT - LAX

Havre

FL 226	BIL - LWT - HVR
FL 233	HVR - LWT - BIL

Helena

NW 68	SEA - GEG - MSO - HLN - BIL - BIS - MSP - DCA
NW 74	HLN - BTM - BZN - BIL - ORD
NW 103	BIL - HLN - BTM - GEG - PDX
NW 108	SEA - GEG - MSO - HLN - BTM - BZN - BIL
NW 181	MSY - ORD - MSP - JMS - BIS - BIL - HLN - MSO - GEG - SEA
NW 707	FLL - ORD - MSP - BIS - BIL - BZN - BTM - HLN

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

Helena

Flights	Itinerary
WA 25	HLN - BTM - SLC - SFO
WA 116	LAX - SLC - BTM - HLN
WA 407	BTM - HLN - SLC - LAX
WA 493	DEN - SLC - BTM - HLN

Kalispell

FL 17	STL - DEN - SLC - BZN - MSO - FCA
FL 22	FCA - MSO - BZN - SLC - DEN - STL
FL 86	FCA - GTF - BIL - DEN
FL 108	PHX - DEN - BIL - GTF - FCA
RW 28	SAN - LAX - SLC - TWF - FCA - GEG - SEA
RW 721	GTF - FCA - GEG - SEA
RW 828	SEA - GEG - FCA - GTF

Lewistown

FL 226	BIL - LWT - HVR
FL 233	HVR - LWT - BIL

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

Miles City

Flights	Itinerary
FL 227	MOT - ISN - SDY - GDV - MLS - BIL
FL 230	BIL - MLS - GDV - SDY - ISN - MOT

Missoula

FL 17	STL - DEN - SLC - BZN - MSO - FCA
FL 22	FCA - MSO - BZN - SLC - DEN - STL
FL 61	FSM - DFW - DEN - SLC - BZN - MSO
FL 64	BZN - MSO - SLC - DEN -MCI - JLN
FL 115	JLN - FOE - SLN - DEN - BZN - MSO - GEG
FL 118	GEG - MSO - BZN - DEN
NW 40	SEA - PDX - GEG - MSO - GTF - BIL - BIS - MSP
NW 68	SEA - GEG - MSO - HLN - BIL - BIS - MSP - DCA
NW 107	BIL - BZN - MSO - GEG - SEA
NW 108	SEA - GEG - MSO - HLN - BTM - BZN - BIL
NW 181	MSY - ORD - MSP - JMS - BIS - BIL - HLN - MSO - GEG - SEA
NW 234	MSO - GTF - BIL - MSP - LGA
NW 369	DCA - MSP - BIL - GTF - MSO

Sidney

FL 227	MOT - ISN - SDY - GDV - MLS - BIL
FL 230	BIL - MLS - GDV - SDY - ISN - MOT

TABLE 1-7

AIR CARRIER FLIGHTS AND ITINERARIES

MONTANA AIR CARRIER AIRPORTS, JULY, 1978

Continued

West Yellowstone

Flights	Itinerary
FL 529	DEN - WYS - JAC - DEN
FL 531	WYS - JAC - DEN
FL 534	DEN - JAC - WYS
FL 842	DEN - COD - WYS - DEN
WA 118	SLC - WYS - GTF
WA 415	GTF - WYS - SLC - ONT - LAX

Wolf Point

FL 225	BIS - ISN - OLF - GGW - BIL
FL 232	BIL - GGW - OLF - ISN - BIS

Source: Official Airline Guide, July, 1978.

TABLE 1-8

17-YEAR MONTANA ORIGIN AND DESTINATION

TRAFFIC HISTORY

City	1961	1962	1963	1964	1965	1966
Billings	73,550	78,850	98,380	110,200	127,280	144,220
Bozeman	2,560	4,440	4,850	6,060	9,690	10,350
Butte	22,630	23,030	28,530	34,340	41,350	46,550
Glasgow	2,270	2,330	3,290	3,480	3,910	4,300
Glendive	900	800	1,430	1,390	1,460	1,660
Great Falls	75,560	81,480	95,780	107,720	128,130	144,980
Havre	880	850	1,190	1,380	1,550	1,430
Helena	7,560	10,490	12,960	14,550	18,520	21,820
Kalispell	4,010	4,080	3,850	5,590	6,300	7,760
Lewistown	910	960	1,390	1,870	2,210	2,740
Miles City	1,220	1,040	1,920	2,110	2,470	2,950
Missoula	12,850	18,200	21,180	26,280	34,480	40,060
Sidney	1,470	1,370	2,860	2,680	2,440	2,510
West Yellowstone	---	---	---	---	5,700	6,070
Wolf Point	660	710	1,400	1,170	990	1,450
Total	207,030	228,630	279,010	318,820	386,480	438,850

TABLE 1-8

17-YEAR MONTANA ORIGIN AND DESTINATION

TRAFFIC HISTORY

Continued

City	1967	1968	1969	1970	1971	1972
Billings	183,790	216,390	225,000	210,560	221,070	221,340
Bozeman	18,230	30,070	34,240	31,660	38,320	33,880
Butte	56,990	62,490	63,050	51,440	57,070	62,100
Glasgow	5,060	4,590	3,700	1,250	1,590	2,990
Glendive	1,790	820	1,840	1,060	1,110	1,130
Great Falls	177,920	186,900	192,010	170,930	169,160	186,670
Havre	1,610	2,830	2,030	710	560	660
Helena	30,250	37,840	37,180	29,120	39,520	37,920
Kalispell	11,780	11,060	15,110	14,170	17,270	18,100
Lewistown	3,050	2,670	1,240	360	670	630
Miles City	2,700	3,040	2,690	1,010	650	900
Missoula	61,220	71,390	67,040	64,830	82,780	76,740
Sidney	2,810	1,220	140	430	1,080	1,190
West Yellowstone	10,560	11,210	7,310	8,710	7,590	11,940
Wolf Point	1,670	3,280	3,610	1,210	1,330	1,340
Total	569,430	645,800	656,190	587,450	639,770	657,530

TABLE 1-8

17-YEAR MONTANA ORIGIN AND DESTINATION

TRAFFIC HISTORY

Continued

City	1973	1974	1975	1976	1977	% Increase (Decrease) 1973-1977
Billings	257,830	298,520	318,540	352,690	366,550	42%
Bozeman	48,710	61,170	65,330	79,060	92,770	90%
Butte	66,890	74,470	72,830	76,900	74,090	11%
Glasgow	3,090	3,300	2,900	4,040	5,930	92%
Glendive	1,250	1,450	1,360	1,690	1,620	30%
Great Falls	191,170	205,750	209,340	233,150	233,960	22%
Havre	1,050	1,020	1,030	1,800	1,360	30%
Helena	50,950	59,640	65,550	72,770	83,870	65%
Kalispell	24,650	32,231	43,880	51,980	64,130	160%
Lewistown	1,270	1,340	1,270	1,160	1,230	(3%)
Miles City	1,160	1,540	1,860	1,710	1,620	40%
Missoula	98,360	120,090	116,710	142,210	155,480	58%
Sidney	1,450	1,610	1,890	2,780	2,020	39%
West Yellowstone	9,980	11,740	11,560	12,040	11,760	18%
Wolf Point	1,590	1,800	2,150	2,530	1,710	8%
Montana Total	759,400	875,671	916,200	1,036,510	1,098,100	45%

Source: C.A.B., Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1961-1977.

TABLE 1-9

TOP 20 CITY MARKETS, 1976

BILLINGS

City	O & D's
1. Denver	42,180
2. Great Falls	22,060
3. Minneapolis	18,830
4. Seattle	18,780
5. Salt Lake City	13,410
6. Helena	13,080
7. Spokane	12,270
8. Portland	11,680
9. Missoula	11,590
10. Chicago	11,190
11. Los Angeles	10,260
12. San Francisco	9,100
13. New York	8,480
14. Washington, D.C.	6,470
15. Bismarck/Mandan	6,130
16. Phoenix	5,450
17. Butte	5,010
18. Casper	4,770
19. Kansas City	4,110
20. Dallas/Ft. Worth	3,780

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-10

TOP 20 CITY MARKETS, 1976

BOZEMAN

	City	O & D's
1.	Minneapolis	7,160
2.	Denver	5,870
3.	Seattle	5,620
4.	Chicago	3,850
5.	Portland	3,550
6.	Billings	3,330
7.	Los Angeles	3,320
8.	Spokane	3,060
9.	Salt Lake City	2,840
10.	San Francisco	2,670
11.	New York	1,860
12.	Missoula	1,780
13.	Washington, D.C.	1,550
14.	Detroit	1,540
15.	Fargo	1,400
16.	Bismarck/Mandan	1,310
17.	Phoenix	1,000
18.	Kalispell	950
19.	St. Louis	850
20.	Dallas/Ft. Worth	790

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-11

TOP 20 CITY MARKETS, 1976

BUTTE

City	O & D's
1. Seattle	7,610
2. Salt Lake City	5,540
3. Los Angeles	5,170
4. Billings	5,010
5. San Francisco	4,760
6. Denver	4,580
7. Spokane	4,430
8. Portland	4,200
9. Las Vegas	2,160
10. Chicago	2,130
11. Minneapolis	1,800
12. San Diego	1,760
13. Washington, D.C.	1,520
14. New York	1,290
15. Great Falls	1,270
16. Reno	1,030
17. Phoenix	950
18. San Jose	910
19. Idaho Falls	780
20. Tucson	750

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-12

TOP 5 CITY MARKETS, 1976

GLASGOW

City	O & D's
1. Billings	560
2. Great Falls	410
3. Denver	360
4. Salt Lake City	200
5. Minneapolis	200

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-13

TOP 5 CITY MARKETS, 1976

GLENDIVE

City	O & D's
1. Billings	450
2. Denver	300
3. Great Falls	180
4. Salt Lake City	90
5. Seattle	90

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-14

TOP 20 CITY MARKETS, 1976

GREAT FALLS

City	O & D's
1. Billings	22,060
2. Denver	18,580
3. Seattle	18,480
4. Spokane	13,380
5. Los Angeles	12,590
6. Salt Lake City	10,910
7. Minneapolis	10,130
8. Portland	8,920
9. San Francisco	8,370
10. Chicago	7,230
11. Las Vegas	5,330
12. New York	5,310
13. Phoenix	3,400
14. Washington, D.C.	3,400
15. San Diego	2,820
16. Dallas/Ft. Worth	2,240
17. Bismarck/Mandan	2,110
18. Kalispell	2,070
19. Philadelphia	1,930
20. Kansas City	1,870

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-15

TOP 5 CITY MARKETS, 1976

HAVRE

City	O & D's
1. Denver	330
2. Billings	270
3. Salt Lake City	140
4. Dallas/Ft. Worth	80
5. Minneapolis	70

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-16

TOP 20 CITY MARKETS, 1976

HELENA

City	O & D's
1. Billings	13,080
2. Denver	6,350
3. Seattle	6,260
4. Salt Lake City	3,880
5. Portland	3,690
6. Spokane	3,660
7. San Francisco	3,240
8. Minneapolis	2,840
9. Los Angeles	2,760
10. Chicago	2,040
11. Washington, D.C.	2,000
12. New York	1,230
13. Missoula	1,140
14. Phoenix	960
15. Bismarck/Mandan	690
16. Boise	650
17. Las Vegas	650
18. Idaho Falls	650
19. Kansas City	580
20. Great Falls	520

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-17

TOP 20 CITY MARKETS, 1976

KALISPELL

City	O & D's
1. Seattle	7,750
2. Spokane	4,090
3. Portland	3,410
4. Los Angeles	2,830
5. Denver	2,570
6. San Francisco	2,390
7. Great Falls	2,070
8. Salt Lake City	2,020
9. Fairbanks	1,660
10. Anchorage	1,290
11. Chicago	1,280
12. Minneapolis	1,130
13. Boise	1,030
14. Billings	970
15. Bozeman	950
16. Las Vegas	950
17. San Diego	930
18. New York	820
19. Phoenix	730
20. Reno	560

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-18

TOP 5 CITY MARKETS, 1976

LEWISTOWN

City	O & D's
1. Denver	250
2. Portland	110
3. Billings	90
4. Minneapolis	70
5. Dallas/Ft. Worth	50

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-19

TOP 20 CITY MARKETS, 1976

MISSOULA

City	O & D's
1. Seattle	15,610
2. Billings	11,590
3. Portland	10,480
4. Denver	8,700
5. Spokane	6,780
6. Minneapolis	6,040
7. Salt Lake City	5,840
8. San Francisco	5,070
9. Chicago	5,370
10. Los Angeles	4,770
11. New York	3,470
12. Washington, D.C.	3,420
13. Anchorage	2,150
14. San Diego	1,780
15. Bozeman	1,780
16. Detroit	1,650
17. Boston	1,590
18. Bismarck/Mandan	1,570
19. Phoenix	1,530
20. Fairbanks	1,490

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-20

TOP 5 CITY MARKETS, 1976

MILES CITY

City	O & D's
1. Billings	370
2. Great Falls	270
3. Denver	180
4. Helena	80
5. Houston	70

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-21

TOP 5 CITY MARKETS, 1976

SIDNEY

City	O & D's
1. Billings	440
2. Denver	130
3. Los Angeles	90
4. Great Falls	70
5. Portland	70

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-22

TOP 5 CITY MARKETS, 1976

WEST YELLOWSTONE

City	O & D's
1. Los Angeles	2,340
2. Salt Lake City	2,100
3. Denver	1,130
4. San Francisco	1,050
5. New York	550

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-23

TOP 5 CITY MARKETS, 1976

WOLF POINT

City	O & D's
1. Great Falls	330
2. Billings	280
3. Denver	280
4. Minneapolis	200
5. Omaha	80

Source: C.A.B. Origin-Destination Survey of Airline Passenger Traffic, 12 months ended December 31, 1976.

TABLE 1-24

IFR AIRWAY OPERATIONS BY SECTOR

	Low Level	High Level	Total
Sector 5--BTM, BZN, HIA, DLN			
Average Daily Oprs.	82	91	173
Busy Hour Oprs.	9	12	--*
Time of Day	1200	1200	--
Sector 6--BIL, LVM			
Average Daily Oprs.	168	99	267
Busy Hour Oprs.	23	17	--
Time of Day	0900	1200	--
Sector 18--GGW, MLS			
Average Daily Oprs.	74	113	187
Busy Hour Oprs.	10	15	--
Time of Day	1000	1400	--
Sector 19--LWT, HLN, DRU, MSO, FCA, CTB, HVR, GTF			
Average Daily Oprs.	108	--	177**
Busy Hour Oprs.	11	--	--
Time of Day	1700	--	--
Sector 20--LWT, HLN, DRU, MSO FCA, CTB, HVR, GTF			
Average Daily Oprs.	--	69	--
Busy Hour Oprs.	--	10	--
Time of Day	--	1200	--

* Total busy-hour operations not indicated, since high and low busy hours do not always occur during the same hour.

** Totals here consider Sectors 19 and 20 as one sector.

TABLE 1-25

NAV-AIDS IN MONTANA

Existing and Recommended

Station Location	EXISTING		RECOMMENDED	
	VOR	NDB	VOR	NDB
Baker		X		
Belle Creek			X	
Billings	X	X		
Bozeman	X	X		
Broadus		X		
Butte	X			
Choteau		X		
Circle		X		
Conrad		X		
Cut Bank	X	X		
Dillion	X	X		
Drummond	X			
Ekalaka				X
Eureka		X		
Forsyth		X		
Glasgow	X	X		
Glendive		X	X	
Great Falls	X	X		
Hamilton		X		
Harlowton		X		
Havre	X	X		
Helena	X	X		
Jordan		X		
Kalispell	X			
Lewistown	X	X		
Libby				X
Lincoln				X
Livingston	X	X		
Malta		X		

NAV-AIDS IN MONTANA

Continued

Station Location	EXISTING		RECOMMENDED	
	VOR	NDB	VOR	NDB
Miles City	X	X		
Missoula	X	X		
Philipsburg				X
Plentywood		X		
Polson		X		
Red Lodge		X		
Roundup		X		
Scobey		X		
Shelby		X		
Sidney		X		
Stanford				X
Stevensville				X
Whitehall	X			
West Yellowstone		X		
Wolf Point		X		

CHAPTER TWO

ANALYSIS OF EXISTING SYSTEM

CHAPTER 2 - ANALYSIS OF EXISTING SYSTEM

I. General

The purpose of this chapter is to evaluate the general adequacy of the present system of airports in Montana. This is done by integrating current data (passenger activity, airline routes, aircraft operations, etc) with the original airport system in order to identify possible shortcomings in the system as it exists today. Changes in air transportation demand, as measured by impacts of energy development on aviation, service changes, and realized demand in comparison to forecast demand per the original state plan are utilized in the analysis. An overview of energy development and related forecasts is presented in light of possible impact to future aeronautical demand and resulting system changes.

II. Current Air Transportation Demand

A. Realized Demand Versus Forecast Demand

Determinations made in the 1974 Montana Airport System Plan regarding airport system adequacy were in part based upon forecasts of demand formulated at the time. The short-range forecast used in the study was 1972-1977. From today's perspective, recommended changes in the system for the 1972-1977 period could be either insufficient or unduly ambitious, depending upon actual or realized demand through 1977 compared to forecast demand. In addition, some system inadequacies identified in the original work may not have been eliminated, thus leaving gaps in the improvement program that have carried over to today.

For the airport system as a whole, the relationship between forecast demand (1972-1977) and realized demand is demonstrated in Table 2-1. This table shows forecast activity for 1977 against actual data for 1977 in terms of enplanements for the system of air carrier airports and total operations for the general aviation system. For most air carrier airports, there is a substantial variation between enplanements forecast in the State Plan for

TABLE 2-1

REALIZED DEMAND VERSUS FORECAST DEMAND, 1977

Air Carrier Airport Passenger Enplanements

Airport	Enplanement Forecast for 1977 (Per Montana Airport System Plan)	Actual Enplanements, 1977 (Per Table 1-6)	Ratio of Actual to Forecast
Billings	284,000	324,654	1.14
Bozeman	72,000	58,064	0.81
Butte	56,000	45,545	0.81
Glasgow	1,500	3,340	2.23
Glendive	1,800	889	0.49
Great Falls	232,000	140,587	0.61
Havre	800	893	1.12
Helena	37,000	49,795	1.35
Kalispell	16,200	35,200	2.17
Lewistown	700	810	1.16
Miles City	1,300	745	0.57
Missoula	63,000	89,514	1.42
Sidney	1,500	1,354	0.90
West Yellowstone	10,700	10,060	0.94
Wolf Point	900	1,132	1.26
Total Montana	779,400	762,582	0.98

General Aviation Operations

G.A. Operations Forecast for 1977, All Airports (Per Montana Airport System Plan)	Actual Operations Estimate for 1977 (Per Appendix A)	Ratio of Actual to Forecast
991,000	1,117,000	1.13

1977 and enplanements subsequently realized. There are about an equal number of air carrier airports where forecasts were high as there are airports which realized more enplanements than were forecast. Coincidentally, state totals shown in the table indicate that there was nearly a balancing of high and low forecasts, so that total forecast enplanements for the 15 airports is very close to total realized enplanements. This would indicate a general adequacy in original system recommendations, with possible shortcomings in the facility needs identified at certain individual airports. Table 2-1 also shows the relationship between forecast general aviation operations for 1977 (state total, including GA operations at air carrier airports) versus the estimated operations which actually occurred in 1977. As indicated, there were 13 percent more GA operations than were forecast. This points to the possibility that system deficiencies may have been created as a result of a greater increase in usage or demand than was anticipated. However, the deficiencies are seen as individual airport facility problems more than as inadequacies of the system as a whole. An airport-by-airport evaluation has determined which public airports within the system need upgrading; these will be identified in Chapter 4 and Appendix A.

B. Impacts of Energy Development

An assessment of airport system adequacy in Montana cannot overlook the current and potential impact to aviation of energy resource development, particularly the extraction and processing of coal. Much of the on-going and future activity in this field was not anticipated in developing system recommendations in the original Montana Airport System Plan. Of all the airline systems in the state, the Twin Otter System in eastern Montana is the most subject to impact and change due to energy development. The emergence of possible airport system needs in eastern Montana will be assessed in this section.

Because of national needs, politics, legislation, development profitability, and other uncertainties involved, forecasts relating to energy development--whether they be extraction tonnages, population forecasts, or spin-off community impacts--are difficult to make. Lacking specific data, most

forecasts are based upon a range of assumptions, producing a series of scenarios describing probable futures within the limitations of the assumptions. In other words, there are alot of "ifs" involved, which makes forecasting a difficult and risky business. Nevertheless, forecasts of energy activity and associated growth are relevant to airport planning issues.

Given that predicting the nature and magnitude of resource development is in itself difficult, forecasting its impacts to the aviation community are even more tenuous. However, for the purposes of statewide planning, precise forecasts are not necessary. Identification of probable trends of development, areas of impacts and general expectations based on current data will be of value in assessing the adequacy of the present system of airports and identifying what improvements in the system may be needed. That is the purpose of this discussion. The use of reasonable forecasts of development and population patterns will point to areas likely to be impacted; airport facility development which might be necessary can then be determined, and possible development action can be planned for.

1. Forecasts of Population and Development

In recent years, the coal resources in the Montana-Dakota-Wyoming region have become critical to this country's energy strategies. Much of this area is underlain by the Fort Union Coal Formation, the largest known coal region in the world. The entire formation extends from southern Saskatchewan into Wyoming and South Dakota, and contains a trillion tons of lignite and subituminous coal within 3,000 feet of the earth's surface.

The extraction of coal within the Fort Union Basin has the potential to lead to rapid population growth throughout much of eastern Montana. The rate of extraction and the extent of associated development activities, i.e. strip mining, electric generation and coal gasification, are of course unknown at this time. However, extensive research has resulted in numerous forecasts or estimates of how future development will influence population growth in eastern Montana. Most forecasts are presented in a speculative manner, which is reasonable given the uncertainties of the situation. Forecast ranges are generally wide.

One well-accepted set of forecasts[1] predicts the population numbers shown in Table 2-2 for 1985, 2000 and 2020. The table presents the 1970 base population for each county and population estimates given extensive coal mining, electric generation, and gasification for 1985. Forecasts also depict the effects of these extensive levels of development and population growth if continued into 2000 and 2020. Twelve counties are considered in the analysis. Because of the intense degree of development assumed in these projections, they should be thought of as estimates of potential growth; realized population impacts would be less under more conservative parameters.

It should also be recognized that development of coal resources will probably not occur in all twelve counties simultaneously. The richest and easiest to reach coal reserves will be exploited first, and population growth in counties will probably be commensurate with the quality and accessibility of the coal, as well as the demand for its use.

Long-range potentials for development and population growth, and therefore, impacts to aviation, are great. However, for the short-range future, many of the affected counties can be expected to show the low rates of population change they have experienced during the past several decades. Eventually, however, all twelve counties listed in Table 2-2 will be impacted to some degree or another.

Although Yellowstone County is not included among the population projections based upon coal reserves, it should be kept in mind that it will accommodate much of the secondary growth associated with coal development throughout eastern Montana. It will serve as a major trade center for the resource activity.

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[1] Jobes, Patrick C., Associate Professor, Department of Sociology, Montana State University, Bozeman, Montana; for the Montana Agricultural Experiment Station, Research Report 109, Population Estimates for Eastern Montana with Attendant Comments on Issues and Recommendations, Sept. 1977.

TABLE 2-2

LOW, MEDIUM, AND HIGH PROJECTIONS FOR 1985, 2000 AND 2020 MADE UNDER THE ASSUMPTION OF EXTENSIVE COAL EXPLOITATION IN EASTERN MONTANA COUNTIES CONTAINING FORT UNION FOUNDATION COAL

County	1970	1985			2000			2020		
		Low	Medium	High	Low	Medium	High	Low	Medium	High
Big Horn	10,057	19,843	23,833	53,103	32,078	40,830	105,033	53,539	69,735	188,549
Custer	12,174	16,786	17,809	26,122	22,015	24,244	41,404	31,097	34,919	63,607
Dawson	11,269	14,416	14,416	14,416	17,645	17,645	17,645	22,461	22,461	22,461
Fallon	4,050	5,161	5,119	5,701	6,335	6,244	7,477	7,978	7,827	9,940
McCone	2,875	4,289	4,836	8,612	5,964	7,132	15,248	8,696	10,682	24,494
Musselshell	3,734	4,698	4,734	5,105	6,076	6,159	6,963	9,975	10,144	11,623
Powder River	2,861	8,144	10,997	32,233	13,819	19,783	64,071	20,354	29,940	100,816
Richland	9,837	13,457	14,122	19,070	17,646	19,094	29,846	24,854	27,381	46,079
Roosevelt	10,365	14,007	14,187	15,480	19,214	19,614	22,490	31,398	32,156	37,606
Rosebud	6,032	10,727	15,610	36,627	16,589	28,128	75,084	27,693	51,553	142,598
Sheridan	5,779	6,657	6,835	8,144	7,488	7,858	10,557	8,433	9,010	13,256
Wibaux	1,465	2,424	2,793	5,431	3,538	4,369	10,187	4,994	6,370	16,270

Source: Jobes, Patrick C., Associate Professor, Department of Sociology, Montana State University, Bozeman, Montana; for the Montana Agricultural Experiment Station, Research Report, 109, Population Estimates for Eastern Montana with Attendant Comments on Issues and Recommendations, September, 1977.

Obviously, mining has already begun in some counties. Consequently, miners, their families, and associated workers are already part of the existing population. Such counties, especially Rosebud County, have a head-start in ancillary development, particularly for the immediate future.

Between the present and 1982, it is realistic to assume that the majority of coal development impact will be concentrated in Rosebud County. In particular, Forsyth and Colstrip will feel the growth impacts. The extent of population growth will be directly related to the intensity of development. The key issue here is the construction of Colstrip Units 3 and 4. Assuming 3 and 4 are built, the population of Rosebud County is estimated to increase to 15,500 people by 1980. This figure includes the impact of construction crews, temporary in nature; in 1985, the population should have settled to 13,500, the influence being a more permanent, operationally-oriented work force.

By 1985, a good share of the mining activity and impact in Montana will be in Big Horn County, in and around Decker. In terms of population, this development is expected to create more impact to Sheridan, Wyoming, than to Montana communities. A small town of 1,000-2,000 people may spring up in isolated Big Horn County, but most energy workers would be expected to live in Sheridan and commute to work.

2. Impacts of Coal Development to the Montana Airport System

Energy development in Montana has and will continue to impact the state's airports in primarily two ways: (1) development-induced population adding to the use of commercial aviation, general aviation, and air taxi; and (2) the utilization of general aviation aircraft by the energy companies in transporting personnel and materials to and from project sites. Population growth and subsequent increase in air carrier enplanements, general aviation operations, and charter operations at Billings are evidence of (1),[2] and the company-owned airfield at Colstrip is evidence of (2). The

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[2] It is recognized that population growth in Billings and Yellowstone County in the 1970's is at least in part energy-related.

need for airport expansion and improvement is of course the ultimate potential impact of increased aviation use in either of these two forms.

With the exception of the private airstrip at Colstrip, energy activity to date has not in itself resulted in the construction of new airports or major facility improvements at existing sites. The effects of development have been in evidence as increased activity at airport locations such as Billings, Forsyth, Miles City, and to some extent, potential development areas such as Circle and Glasgow. Baker's airport operational activity has also been stimulated by nearby oil activity. Net impacts in terms of activity are nearly impossible to measure, although at the airports listed above in addition to a few others, increases in activity are significant, possibly to the extent of 20 or 30 percent over pre-development levels. Presently, however, the only new facility need attributed directly to resource development is the the recommended new public-use airport at Colstrip.

Future impacts to aviation are in the long term uncertain. The complex set of relationships affecting the ultimate use of coal will determine the degree and timing of population change. As population is impacted, so too will be aviation activity. In general, the impacts noted to date in terms of increased usage of commercial and general aviation should continue over time. If intense coal utilization leads to population growth in the intermediate and long range of the magnitude noted in Table 2-2, aviation impacts will probably be proportionate, and major airport expansion projects may be necessary at several locations. Less ambitious coal exploitation will probably have relatively limited airport development implications.

Within the next five years, resource development is expected to have a limited impact in terms of new airport facilities. Most of the resource-related increases in commercial and general aviation demand will be satisfactorily absorbed by the existing system of airports. With the exception of the aforementioned Colstrip public airport, the system should comfortably accommodate most increases in activity. It is possible that a limited number of individual airports may feel the pressure to expand or upgrade in the five-year period due to resource activity. One possible example is the Circle Airport, which could need a runway extension in the near future if

coal development in that area occurs in rapid fashion. The existing Circle Airport Master Plan does not foresee this, however, prior to the intermediate (10-15 year) period. Most of the state's general aviation airports experience rather low activity levels, and are therefore capable of safely handling much more traffic before facility expansions are necessary. It is recognized that the impacts will probably be felt not so much in terms of operational volume as in aircraft types. However, the desires of the coal companies for the use of executive aircraft such as Lear jets into smaller airports is quite limited; therefore, very few expansions to Basic Transport standards will be required for the 5-year period. This could change in the long range depending upon the extent of resource development.

3. Impacts to the Eastern Montana Air Service System

Population growth and resource development activity in eastern Montana could obviously affect the commercial aviation needs of the communities which are now receiving regularly scheduled air service. These are cities which, by present CAB thinking, will continue to receive service by mandate of federal law.

The type of service these communities will be receiving is unknown; it is very possible, however, that Frontier will be replaced by a commuter carrier. It appears that Frontier will be at liberty to make the decision as to whether or not it wishes to continue to provide service for this system. If Frontier leaves eastern Montana, the CAB will apparently be required to assist in finding a substitute carrier, which almost certainly would be a third-level carrier.

One question is, will energy development in eastern Montana lead to such an increase in commercial aviation demand that a commuter system would be inadequate for providing effective air transportation for the cities in the eastern Montana system? The answer is no; even though growth in passenger traffic potential is expected, it is very doubtful that third-level service would be incapable of providing the service that these cities will need. The reason is that the commuter replacement would be required initially to provide a minimum of two or three round trips per day to each location;

this would give these cities more frequency, and possibly more seats, than they are getting now, and probably service that is more functional in terms of flight timing to hub airports. Given that the commuter airlines would be in business to realize a profit, they would presumably add flights to the system if warranted by the traffic growth. Furthermore, commuter airline seating and weight limitations will cease to be restrictive to the capability of the carrier to respond to the traffic demand, since the CAB will allow for aircraft of up to 60 seats and an 18,000 pound payload.

CHAPTER THREE

FORECAST DEMAND AND SYSTEM REQUIREMENTS

CHAPTER 3 - FORECAST DEMAND AND SYSTEM REQUIREMENTS

I. Forecast Air Transportation Demand

This element presents updated forecasts for four categories of aviation demand:

1. Scheduled Air Carrier Enplanements
2. Scheduled Air Carrier Operations
3. General Aviation Operations
4. General Aviation Enplanements.

A. Air Carrier Activity

1. Enplanements

The need to update the forecasts of air carrier activity originally developed in the Montana Airport System Plan is clearly established by the divergence between forecast demand to 1977 and realized demand at individual airports, as demonstrated in Table 2-1. It is apparent that actual deviations from the short run forecasts could in most instances be magnified in later periods, assuming continued growth.

The base data for updating the forecasts of air carrier passenger enplanements were actual 1977 enplanements from airport and airline sources; these are believed to be very accurate numbers, since the records of airport management offices are tied to statistics provided to them by the airlines. For the air carrier airports in eastern Montana, the 1977 data was provided by Frontier Airlines.

In forecasting enplanements beyond 1977, horizon years were pushed out five years beyond those in the original plan; hence, 1982, 1987, 1992, and 1997 are the target years shown for all forecasts.

Forecasts were formulated for each air carrier airport individually, so that

state-wide totals were developed "bottom-up", not "top-down". The most important secondary sources of statistical information used in generating the forecasts were individual airport master plans. In most cases, the level of detail, effort, and documentation used in forecasting at the master planning level exceeds that possible in system planning; therefore, the master plans generally provide a readily-available source of valid data. However, most plans are several years old, and the forecasts could not always be used directly. Updates were used where applicable, and detailed growth rates were considered in evaluating forecasts. Additional sources were forecasts developed for route planning purposes for individual airports and forecasts developed and published by the FAA. Other considerations used in updating the forecasts include long-term historic activity, discussions with airport managers, community population forecasts, anticipated airline system changes, impacts of deregulation, commuter activity, and the previously-discussed eastern Montana energy impacts.

Results of enplanement forecasts for Montana's fifteen air carrier airports are shown in Table 3-1. Some highlights of the results are:

(1) For the immediate future (to 1982), total state enplanements are estimated to increase by approximately 41 percent, or just over seven percent per year.

(2) Montana should reach 1,000,000 total enplanements by 1981 or 1982.

(3) Growth in enplanements beyond 1982 will continue at a moderate-to-rapid rate, although the annual percentage growth will decline.

(4) Billings will continue to dominate the state's air carrier activity and become increasingly important as an air carrier hub.

(5) Bozeman, Helena, Kalispell, and Missoula should continue to show healthy growth in enplanements; Butte, Great Falls, and West Yellowstone will continue with slow rates of increase in relation to the other large airports. This situation could improve for West Yellowstone if the airport is opened year-round.

TABLE 3-1
SCHEDULED AIR CARRIER
ENPLANEMENT FORECASTS

City	Air Carrier Enplanements				
	1977 [1]	1982	1987	1992	1997
Billings	324,654	485,000	639,000	777,000	942,000
Bozeman	60,800	110,400	166,000	240,700	335,600
Butte	45,545	55,000	63,000	72,000	81,000
Glasgow	3,340	4,300	4,300	4,300	4,300
Glendive	889	900	900	900	900
Great Falls	140,587	163,000	189,000	219,000	254,000
Havre	893	900	900	900	900
Helena	49,795	67,100	90,300	126,700	170,600
Kalispell	35,200	56,000	80,000	102,000	126,000
Lewistown	810	800	800	800	800
Miles City	745	900	900	900	900
Missoula	89,514	119,000	149,000	179,000	185,000
Sidney	1,354	1,400	1,400	1,400	1,400
West Yellowstone	10,060	10,600	11,100	11,700	12,300
Wolf Point	1,132	1,400	1,400	1,400	1,400
Montana Total	765,318	1,076,700	1,398,000	1,738,700	2,117,100

[1] Source for 1977 enplanements: airport and airline records.

(6) The bi-word for the eastern Montana cities is uncertainty. The numbers of passengers enplaned at these airports in the future are a function of such complex variables as the carrier(s), type of service, equipment and schedules, all of which are unknowns at this time. Selection of a specific set of assumptions to use in forecasting would only be speculation, and would be beyond the scope of a state airport system plan. Therefore, rather than attempt a specific forecast, enplanements for these cities are assumed to be constant at approximately the current level. In reality, enplanements will be probably diverge from these numbers, depending upon future service provided.

(7) Passengers carried by the commuter carriers in future years are included in the enplanement totals for all cities.

(8) As with any forecast, these should be updated periodically to incorporate current data as conditions change. The numbers could be superseded by more detailed forecasts done at a future date for more specific purposes.

2. Operations

Air carrier operations through 1997 (Table 3-2) are estimated using the forecasts of passenger enplanements and forecast flight frequency growth rates from airport master plans. (Note: Aircraft operations equal two times flights, since operations are take-offs plus landings). 1977 scheduled air carrier flights were obtained from analysis of the Official Airline Guide.

The most significant feature of Table 3-2 is that air carrier operations are forecast to increase at a slower rate than passenger enplanements. This is because over time larger-capacity aircraft are anticipated to be in use; more seats available means that, on the average, each flight will carry more passengers. Average industry load factors are also expected to increase. Commuter flights are not included in the totals for all airports.

TABLE 3-2
SCHEDULED AIR CARRIER
OPERATIONS FORECASTS

City	Air Carrier Operations				
	1977 [1]	1982	1987	1992	1997
Billings	19,900	21,000	22,600	23,800	25,000
Bozeman	6,600	7,500	9,100	11,400	13,900
Butte	5,800	6,400	6,900	7,600	8,300
Glasgow	2,900	2,900	2,900	3,200	3,500
Glendive	1,200	1,200	1,200	1,200	1,200
Great Falls	12,400	13,900	14,500	16,000	17,500
Havre	600	600	600	600	600
Helena	5,100	6,200	7,300	7,300	7,300
Kalispell	3,700	4,700	5,500	6,200	7,100
Lewistown	1,200	1,200	1,200	1,200	1,200
Miles City	1,200	1,200	1,200	1,200	1,200
Missoula	6,600	9,200	11,600	14,600	17,600
Sidney	1,200	1,200	1,200	1,200	1,200
West Yellowstone	900	900	900	900	900
Wolf Point	1,200	1,200	1,200	1,200	1,200
Montana Total	70,500	79,300	87,900	97,600	107,700

[1] Source for 1977 operations: Official Airline Guide.

B. General Aviation Activity

1. Operations

Forecasts of general aviation activity are by necessity more general than the air carrier forecasts. Records or documented data on based aircraft, aircraft operations, or types of activity are virtually non-existent at most locations. Therefore, estimates must be used to establish current levels of activity from which to generate forecasts. Yet, precise data is not mandatory since development needs criteria for GA airports are based on approximate usage factors.

Forecasts of general aviation aircraft operations were built upon data prepared by the Montana Aeronautics Division. Estimates of current operations and forecasts to 1982 were formulated by the state following physical airport inspections, review of relevant publications and interviews with FBO's, pilots, airport managers, and other knowledgable people. Forecasts to 1982 are assumed to be valid, and in most cases, are accepted and incorporated into the individual airport data shown in Appendix A. Estimates for 1982 were revised in instances where the forecasts seemed unreasonable or were superseded by master plan forecasts.

To prepare detailed, airport-by-airport operations forecasts for the entire 20-year period would have been beyond what is required for development of a five-year needs plan. Therefore, a general growth rate for airport operations from 1982 through 1997 was applied to all airports, except where master plans forecasts were provided. An analysis of FAA forecast growth rates in the Rocky Mountain Region and a judgmental evaluation by the consulting team resulted in the selection of 15 percent growth in operations each five-year period beyond 1982. Some airports required adjustment from this general approach.

2. Enplanements

The forecast of general aviation enplanements is a direct fallout of aircraft operations. Enplanement estimates for 1982, 1987, 1992 and 1997 are also

shown in Appendix A. These forecasts were made on the basis of an average number of expected occupants per itinerant aircraft departure. (Occupants involved in local operations are not counted as enplanements.) The number of occupants or enplanements per itinerant departure is projected to increase moderately (one percent per year) per the following schedule:

Year	Average Enplanements per Itinerant Departure
1977	2.80
1982	2.94
1987	3.09
1992	3.25
1997	3.42

The increasing number of enplanements per departure assumed has been influenced by the expected increasing popularity of twin-engine aircraft and by the actions of major general aviation aircraft manufacturers, which have recently been increasing the horsepower and seating capacities of many single-engine models.

II. Forecast Airport Locations and Characteristics

An evaluation of base data, forecast activity, alternatives, and relevant development issues has resulted in the conclusion that new airports are needed to accommodate demand at the following locations (this does not include airports which are candidates for relocation):

Cascade
Chico
Colstrip
Ft. Peck Shoreline

An airport is recommended at Cascade to replace the facility recently closed. Chico and Ft. Peck Shoreline are recommended as recreational airports to serve the increasingly popular facilities at these locations. Community growth and activity at Colstrip have increased in recent years to the point where a public-use airport is justified. The existing airport at Colstrip is a private strip owned by the Anaconda Company, and not open to use by the general public. All four airports should be built to Basic Utility standards. Due to the inadequacy of existing facilities for serving present demands, the following airports should be relocated to a new site:

Ashland
Ekalaka
Grass Range
Poplar

III. Environmental Requirements

A. Airport Protection through Zoning and Airport Influence Area

Every airport in Montana that does not have proper and complete land-use control through zoning, creation of an airport area of influence and proper airspace zoning through FAR Part 77 is a candidate for potential land-use conflict. This plan recommends that all airports in the system take immediate steps to create an area of influence in accordance with Montana law. In the event zoning does not occur around some airports for several years, this will give the airports a mechanism for protection against potential encroachment and incompatibility. Airport owners should also institute land-use zoning in the vicinity of the airport. In addition to land-use zoning and the airport area of influence, all airports should be protected through a zoning ordinance which may go outside the area defined as an influence area. Airports should take steps to comply with Federal Air Regulation Part 77 to protect approach surfaces and transitional zones from obstructions.

In the 1930's and 40's when transportation and communication were less sophisticated than today, it was advisable to attempt to locate an airport as near to the edge of the city or town as possible. Most of these airports have served their communities well for two, three, or four decades; however, as cities grow so do airports, and with the evolution of faster, noisier aircraft that generally require a flatter approach, the less compatible airports become with their neighbors. At the same time, improved communication systems, ground transportation systems, and road access make it less imperative that airports be located near town. Communities must begin to realize that the price of convenience is noise and potential incompatibility. Compatibility means safety not only to the community, but to the flying public as well.

Some Montana cities are growing at a rapid rate; others are not growing. Some cities are experiencing development in the vicinity of the airport; other airports some distance from town seem to be avoiding man-made obstruction and thus have no apparent problems. Though an airport may appear to have no conflicts (obstruction-free with no compatibility problems) non-compatible uses can spring up overnight. Lack of land use planning and zoning can lead to the premature demise of airports, possibly resulting in airports seeking out new locations. This is a high price economically and aeronautically to pay for simply not taking the time and effort to properly zone the airport's influence area. At some locations, incompatibility is more apparent than at others because the airport was boxed in or placed within a confined area originally.

The best tools an airport can have to alleviate potential problems are land-use planning, a height restriction zoning ordinance and a designated airport influence area. A law passed by the 1977 Montana State Legislature has provided the airport influence tool by making it mandatory that airports create an airport influence area. The purpose of Senate Bill 198 is to require local governments to identify airport influence areas and to establish criteria for the regulation of noise, height, and land use within these areas.

Although the bill does provide a much-needed vehicle for airport protection, it is imperfect in its present form. Undoubtedly the law will be amended from time to time. The Aeronautics Division has suggested several changes to strengthen the law. The consultants have reviewed these changes and concur that such alterations would make the law clearer and more easily implemented by local governing bodies.

B. Evaluation of Individual Airport Locations

This plan recognizes that every airport has the potential of being obstructed by natural or man-made objects or encroached upon by development not compatible with the airport. Some airports are now faced with more serious land use or incompatibility problems than others. This plan has identified 25 locations where immediate action is necessary to protect the future of the airport. It is not the intent of this plan to be critical of any airport but simply to point out some of the more obvious potential problem areas which could be alleviated through proper zoning. The plan further recognizes that in most cases each of the airports has also recognized the existence of problems and has been looking for a legal vehicle for easy implementation to proper zoning. Compliance with Senate Bill 198 will provide the basis for proper airport protection.

Ashland

Although this airport is constrained by the Tongue River, development is occurring in the approach zones. Development is also infringing on the airport from the west. Land use zoning is vital to the longevity of this airport.

Baker

Baker is presently being master planned for the determination of whether this site or a new site should be developed as the ultimate airport serving

the area. The airport board has long recognized the conflicts with the town in the northwest clear zone. A part of the master plan will be land-use planning for the airport.

Bozeman

Gallatin Field has some residential development in the southeast approach to the airport. Although this development is not an airspace obstruction, it is a potential land-use conflict with the airport. This fact is recogized by the airport authority, which is now developing a land-use/noise plan for Gallatin Field. Bozeman has instituted the creation of the airport influence area.

Butte

Because of its geographic surroundings, the Butte Airport has lived with many natural and man-made obstructions since its initial construction. With the residential growth of the city in the direction of the airport, land-use conflicts are more and more apparent. Therefore the airport board is studying this issue within the on-going airport master plan. One of the more important aspects of the current master plan will be the land-use study.

Chester

The Liberty County Airport at Chester is a typical example of an airport being very convenient in serving an agricultural center. This airport, however, will be in jeopardy in years to come if the easterly approach is not properly protected.

Chinook

The Chinook Airport also has easterly approach problems with the town located immediately adjacent to the boundary of the airport. Although the threshhold has been displaced on the runway, other approach surfaces should be protected as well. This airport also has some lateral constraints.

Columbus

The Columbus Airport has lateral development as well as some obstructions in the westerly clear zone. Land-use planning will be a vital part of this community and airport in the near future.

Conrad

The approaches for the Conrad Airport are protected. However, due to the airport's proximity to town, it is possible that residential development could occur nearer to the airport than desirable. Immediate land-use planning is recommended for this area.

Ekalaka

The Ekalaka Airport has for many years been a convenient airport to the county seat. Now due to its proximity to town and the state highway, the airport is being considered for relocation. In the event that relocation does not take place, immediate zoning and land-use controls should be implemented.

Glasgow

Glasgow is a typical example of an excellent airport location for a community of that size. Also typical, however, is the tendency of the town to grow

toward the airport. The new high school is now located adjacent to the airport, and this new facility will undoubtedly act as a catalyst for additional development. To insure that the development is compatible with the airport, immediate land-use controls should be implemented.

Hamilton

The airport at Hamilton is constrained unless additional lands are purchased adjacent to the airport. Even though the airport may not grow, the county should institute land-use planning adjacent to the airport in that the area is growing rapidly and should the airport someday become surrounded by subdivisions, there could be environmental conflicts.

Hardin

The Fairgrounds Air Park at Hardin has airspace obstructions paralleling both sides of the runway. The only areas not in violation are the clear zones on either end. These clear zones must be protected from any additional encroachments even though instituting a Part 77 zoning ordinance would do little for the airport at this time.

Kalispell (City Field)

The city airport located on the south edge of Kalispell is completely surrounded by commercial development. This development is not incompatible with the airport use itself. In fact, the airport serves as a direct asset to the commercial community. The airport does, however, have obstructions within its airspace structure. Also, the traffic pattern is directly over a dense residential area and the potential for land-use or environmental conflict does exist.

Kalispell (Glacier Park International Airport)

The air carrier airport serving Kalispell and the Flathead Valley is the Glacier Park International Airport located north of the city of Kalispell. This airport is destined to grow and likewise is destined to attract certain development around it. Although no known conflicts now exist on the airport, immediate steps should be taken to protect the entire airport influence area.

Laurel

Although this airport is limited from much additional growth, the opportunity now exists to institute protective land-use planning and zoning.

Malta

The Malta airport is physically constrained, and to preclude any additional constraints, the airport area of influence should be land-use planned and zoned.

Plains

Although the Plains airport has a few obstructions within its Part 77 surfaces, additional conflicts could be eliminated through immediate zoning.

Polson

The Polson airport is not able to expand further because of river and highway barriers. However, an airport zoning ordinance would protect the approach and transition surfaces in this location where both residential and industrial development are rapidly occurring.

Poplar

The westerly approach to the Poplar Airport has a residential development land-use conflict, and the entire area should be studied to either protect from further development or to consider relocation.

Ronan

The Ronan airport in its existing location can serve that area for at least 20 years if the adjacent lands are properly zoned and the airspace protected through ordinance. There are no known conflicts with this airport at the present time, but the area is rapidly developing and time is of essence to institute such zoning.

Sidney

The Sidney-Richland Municipal Airport is located in the heart of an agricultural area. For the benefit of the airport, it would advisable that the land surrounding the airport be zoned agricultural. Should any subdivisions develop on this ag land, potential conflicts are possible in that the airport does have some executive jet activity.

Land-use planning and zoning will be vital to the area surrounding the Stevensville Airport. The rapid growth of the Bitterroot Valley could cause residential development in a location too near to the airport without proper zoning.

Three Forks

The Three Forks Airport does not have adjacent land use zoning nor does it have clear zone easements or an airspace obstruction ordinance protecting the approaches to the airport. Immediate action should be taken by the county airport board to protect the airport. Failure to do so could

render the airport unusable within a year or two. The airport is expandable at its present location, but top priority should be to protect the existing facility.

Valier

For many years, the Valier airport has remained immediately adjacent to the south edge of the town and the north edge of Lake Francis. This has been an ideal situation for both the flying public and the town residents. To insure this compatibility continues, proper land-use and zoning should be immediately instituted.

Wolf Point

Land-use planning and controls should be developed adjacent to the Wolf Point airport so that the neighboring golf course and the airport have no operational conflicts or safety problems.

CHAPTER FOUR

FUTURE AVIATION SYSTEM NEEDS

CHAPTER 4 - FUTURE AVIATION SYSTEM NEEDS

I. Alternative Systems

A. General

The section examines changes foreseen in demand and other variables to determine if alternative airport systems need to be considered to accommodate the new dimensions in aviation. Known or projected impacts to the Montana Aviation System may bring about choices as to how demands are met. The original Montana Airport System Plan concluded that no alternatives to the recommended system appeared, since the existing system was adequate to meet future needs. This section is an update of the original evaluation of alternatives. Major considerations are aircraft and operational trends, regulatory reform and the regional airport concept.

B. Aircraft Trends and Airline Systems

The past five years in the state of Montana has seen the disappearance of the Fairchild F-27 from the scheduled air carrier fleet of Hughes Airwest. This aircraft was serving Great Falls and Kalispell. The DC-9 has replaced the F-27. The five-year period has also seen the replacement of the Convair 580 used by Frontier Airlines in every city but Billings. The Convairs have been replaced by Boeing 737 aircraft. The introduction of the DC-10 and B-747 into the Northwest Airlines scheduled flights into Montana has also been within the last five years.

The next five-year trend in aircraft types will not be as dramatic as the last five. Some of the airlines serving Montana have ordered the new family of Boeing aircraft, the B-757 and B-767. Those aircraft will not be off the production line until 1983 or 1984 and are not foreseen to be used any place in Montana during this next five-year period.

Great Falls and Billings will see a continued increase in aircraft operations by the jumbo jets, namely the DC-10 and 747, whereas the remainder of

the major air carrier airports in Montana will see less change. Bozeman, Helena, and Missoula will see an increase in the charters and some schedules of the DC-10 from Northwest Airlines.

Kalispell will probably see the continuation of the same DC-9 and B-737 with no introduction of new aircraft other than the occasional larger charter. West Yellowstone and Butte will see the phasing out of the Western Airlines Boeing 737 to a Boeing 727-200.

The smaller air carrier airports in Montana may see the disappearance of the Twin Otter. Replacement commuter service could involve any one of many commuter type aircraft, ranging in size from the Piper Navajo to the Swearingen Metro.

The trend in general aviation aircraft types will be as it was in the past five years toward the heavier, faster single-engine aircraft and the turbine powered twin-engine aircraft. The advent of the more common use of the twin-engine aircraft could have a greater impact upon the general aviation airports than the change in air carrier aircraft will have on the air carrier airports. The more sophisticated general aviation aircraft, especially the twin-engine types, will be requiring better operating surfaces and in some cases, runway extensions.

The primary impact upon the airline airports in Montana from the larger jets will be in the area of improved taxiways and parking aprons. Most runways have been reconstructed and extended to accommodate the heavier jet airliners but out of economic necessity the taxiways have had a lower priority.

Though the air carrier aircraft themselves may not change a great deal in the foreseeable future, the airlines' schedules, route patterns, and systems in Montana are expected to change significantly. This forecast is directly related to the re-regulation of the airline industry, which is expected to allow carriers much freer market entry and exit. The increased flexibility of airlines to adjust schedules, realign service within their points of service and to add or delete points will almost certainly result in some cities receiving improved service and other cities suffering some loss of service. The

market will dictate changes, as more fully discussed later in this section. Some possible airline system trends affecting Montana are briefly discussed below.

Alaska Airlines has recently filed an application with the CAB to offer competitive service with Northwest Airlines across the northern part of the country. The Montana points of Missoula, Great Falls, and Billings are included in the application. The Alaskan application will reportedly be looked upon very seriously by the CAB, and a new Alaska system could be operative in the short-range period.

Frontier Airlines has been very successful in Montana, and the public has responded favorably to most of its route changes and additions within the last few years. With the exception of eastern Montana, it would be anticipated that Frontier will continue to look at Montana positively, and to include Montana points in its system changes and service additions. Frontier has on file with the CAB an application to serve Helena.

Western Airlines has indicated that system improvements over time could be anticipated with respect to its service to Montana. It should not be anticipated that there will be system changes by Western with regard to which cities in Montana will be served, but that service levels will be improved over time within the existing system. The capability for service improvements would immediately be enhanced by Western's possible merger with Continental Airlines, since Montanans would be offered direct service to more communities than Western could offer alone. Western has also asked the CAB for additional east-west authority involving Montana points; the specifics of this request are unknown at present.

Northwest Airlines' long-range intentions with respect to Montana are unclear with a couple of exceptions. NWA's interest in continuing to improve service to Billings is clear. Northwest is not looking to add Montana points, and the extent to which improvements will be made in service to Butte, Bozeman, Helena, Great Falls, and Missoula is dependent

upon the results of internal route realignment. As a major trunk airline, Northwest seems to view future service to these points as a fallout of service changes aimed at larger points within its system.

C. Regulatory Reform Within the Airline Industry

1978 was a year of reform in the philosophies and regulatory policies of the Civil Aeronautics Board. Issues involved in the re-thinking of the CAB's role in the industry are extremely complex. As a result, much confusion surrounds the Deregulation Act of 1978 under which changes will occur. Of course, reform is a continuing process and many issues are yet to be resolved. Therefore, the end results of this process of change are far from evident at the present time. However, directions of reform are beginning to emerge, partly as a result of the initiative of the CAB. The purpose of this section is to present what appears to be the present CAB position with regard to issues important to Montana such as market entry/exit, subsidy, and the future of commuter airlines.

Recognizing the confusion that exists with regard to its position, the CAB is attempting to visit every state by the end of the year to discuss its overall objectives. Recently a spokesman for the CAB held discussions in Bismarck and Helena on the subject of regulatory reform. The points presented in this section are in part a result of the information presented at those meetings.

1. General CAB Attitude

The CAB's general mood seems to be one of openess to change. The Board is operating under a new "Sunshine Rule" meaning that issues and attitudes are in the open and the CAB is soliciting fresh new ideas from throughout the industry. It appears to be more interested in listening to community, state, and committee groups on future rules and regulations than ever before. This positive attitude is resulting in changes, both

concrete and philosophical, which the CAB believes are in the best interests of airlines, communities, and the traveling public.

Regional meetings held by the CAB such as the ones in Bismarck and Helena will be augmented by the establishment of field offices in Kansas City, San Francisco, Boston, and Atlanta. Issues pertaining to Montana will probably be handled through the San Francisco office.

2. Regulatory Philosophy

The CAB has come to believe that the market place should determine such matters as service and price, i.e. what cities should be served and what the fares should be. This in effect says that consumer demand will be the dominant factor in determining service and fares in a less regulated environment. Where market potential exists, economic factors will be at work to provide service in response to the demand.

3. Entry/Exit of Airlines

Under a philosophy of decreasing regulation, it is inevitable that the industry will see an easing of market entry/exit criteria. This will probably be accomplished through the issuance in the future of "permissive" rather than "mandatory" certificates of authority. The exact mechanics of entry/exit and the details of certificate obligation are unknown at present; however, it does appear certain that in the future the industry will be more at liberty to add and delete points than is now the case.

Under existing carrier certificate obligation (minimum obligation at any one point), carriers have the freedom to change schedules in terms of cities and in terms of service to any particular city as long as the carrier meets "traffic demand" from its viewpoint. However, carriers cannot take the last schedule out of the city without prior Board approval.

A program has been instituted whereby the CAB will require a three- to six-month advance notification on any schedule change by a carrier to a community wherein the change might be detrimental to the community. This progam, which the carriers have apparently agreed to, should be in full operation by early 1979. The CAB will be able to give information upon call regarding severe schedule changes to communities or other interested parties. Upon receipt of the request for change, the CAB will:

(1) Contact communities and replacement carriers. This could involve any size carrier depending upon the type of aircraft needed to satisfy the market. The CAB will contact the carriers in conjunction with the communities to provide an almost direct response to transportation information that might help them to understand the problem.

(2) Plan a computerized program using past data to estimate profit potential for any carrier in a given market. This information will be available for all carriers, including commuters, and communities.

4. Commuter Airlines

The most fertile area in air transportation today is the commuter airline industry. The Board is basically of the belief that the best way to tap market potential is to insure that opportunities for travel are maximized. In regard to smaller communities, the Board believes that three well-timed round trips per day (making connections) would provide citizens of a community with superior service even though smaller equipment was used in comparison to one flight per day with larger-capacity equipment. One flight per day means departures 24 hours apart; this does not necessarily provide adequate convenience. Three departures per day would provide a much higher level of convenience for most passengers. The CAB is attempting to persuade smaller communities that the commuter alternative is not an unacceptable alternative in most cases. The Board believes in greater frequency with smaller airplanes as opposed to single frequency service

with larger equipment. Any substitute service only need be approved by the FAA. The CAB does not require it be certificated but only that it have two engines, two pilots, and provide preferably three round trips per day.

By providing a computer printout of projected profit and loss on any particular route, the CAB will be whetting the appetite of possible commuter carriers or cities. The Board now has about ten aircraft types programmed into its computer. The assumptions or variables can be adjusted so that replies back to the city or carrier can be made within a few days.

5. Subsidies

In general, the Civil Aeronautics Board is vitally interested in reducing all types of subsidy wherever possible. What the CAB is seeking is as much service as possible with as little subsidy as possible. In the near future, the Board will be taking a fresh look at the subject of subsidies either on its own or through congressional legislation. The CAB will be contacting states for their views on subsidy criteria.

The Board is interested primarily in fostering good airline service without spending excessive amounts of tax payers' dollars. One of the problems the CAB has had with the present subsidy system is getting service without overspending. Current guiding principals include:

(1) Attempting to match equipment to the volume of traffic in the community;

(2) Reducing subsidy by advocating commuter carrier operations; and

(3) Maintaining quality of service that has been established in communities.

In the long run, service that communities will finally receive will be the kind of service that is economically justified. Continued large subsidies are not consistent with this economic principal, and the Civil Aeronautics Board now recognizes this fact.

6. Funding

Regarding communities that go to commuter service, present regulations and statutes do not permit enplanement monies to be granted to communities served by that class of carrier. The Senate Commerce Committee is considering changes in this funding criteria.

D. Regional Airport Concept

In certain areas of the United States, the number of air carrier airline airports is diminishing and the local service carriers and commuter airlines are feeding to regional airports. The main reasons for the appearance of regional airports are that some air carrier airports are no longer able to physically serve the needs of the carriers and that service has been reduced by the carriers. As a result, passengers are going to adjacent airports for airline service, thus an adjacent airport emerges as the regional airport.

This creation of regional airports is not occurring in Montana for several reasons. The state is so vast that long driving times are necessary from one population center to another. In most instances, the cities are separated by geographical barriers, such as mountain ranges or other terrain features that cause automobile driving to be difficult and many times unsafe during winter weather conditions. Each air carrier airport in Montana enjoys good and ever improving airline service. It does not appear that the number of air carrier airports will diminish in this five-year period.

In the fall of 1978, a new commuter airline, Big Sky Airlines, based in Billings, inaugurated service in Montana. Its initial service provides a new air link between Kalispell, Helena, and Billings. This new service is being developed on a linear concept between the communities and not on a hubbing concept to a regional airport.

Billings is the major hub for the state of Montana and will continue to gain strength in that role. This plan, however, does not foresee Billings becoming a regional airport per se because of the vast distances to the nearest communities of any size.

The Regulatory Reform Bill before Congress in the late months of 1978 would allow for increased exit and entry to markets; it would also give the carriers flexibility to realign service at their points of certification. In the short range or five-year phase, this plan expects that the Montana communities will receive better service for the greater distances but will find that the large carriers will be providing decreased service from point to point in the state. The commuter airline(s) should certainly help fill that deficiency.

The regional airport concept does not appear to be on the horizon for the local service carrier airports in eastern Montana along the high line or low line. This plan does not foresee in this five-year period the consolidation of certain stops in eastern Montana by Frontier Airlines, but instead does project that should Frontier Airlines choose to alter its service in eastern Montana, it would be a total deletion as opposed to the hyphenation of certain points such as Glasgow-Wolf Point and Sidney-Glendive. In the event of total deletion, this plan further does not see that a regional airport would satisfy any demands at those locations; the demands would be satisfied with a replacement commuter carrier. Communities in eastern Montana are too small and distances are too great to support the regional airport concept.

The economic base of Montana will remain primarily agriculture, mining and minerals, forest products, tourism, and energy development. The order of importance will vary from decade to decade. These economic bases are not all in existence in each air carrier airport area. Thus this divergence

from city to city lends its own importance to air service on an individual city basis. It also means that the air service is less apt to be altered or regionalized to fit best one main gateway such as Seattle or Denver because of one economic base.

In summary the regional airport concept does not fit Montana for the short-range future, but once the CAB allows a freer exit and entry into markets, the total system in Montana could change. This issue should be re-examined every three years.

Also, the regional airport concept often implies the creation of a new major air carrier airport centrally located to a population center of a large region. Because of limits to growth potential, this possibility does not appear likely within the time frame of this century.

E. Conclusions of Alternatives Analysis

As a result of industry re-regulation and airline system changes, most air carrier airports will undergo adjustments in the service levels they will be accommodating in both the short-term and long-term future. The changes in service anticipated, however, will not call for additions to the system in the form of new airports. From the standpoint of airport location, the existing system of air carrier airports is close to optimum for serving the distribution of demand. Although there are no severe shortages in airport conditions, improvements are required at most individual airports to enable them to adequately handle the demand. Specific airports-by-airport improvements are identified in Appendix A. The developments recommended are necessary irrespective of future changes in airline route systems described earlier in this section; they are by and large needed to accommodate present needs. From the system viewpont, therefore, no alternatives to the existing system emerge.

II. Future Systems

A. Commuter (Third-Level) Service

As of the week of September 11, 1978, certain Montana cities are receiving service by a third-level or commuter airline system for the first time since the discontinuation of Apache Airlines service to eastern Montana in 1970. Big Sky Airlines has initiated service on the basis of three round trips per day between the cities of Billings, Helena, and Kalispell. Depending upon the success of this system, Big Sky has announced that at some point they plan to expand their service by the addition of other major Montana cities.

The trend of regulatory reform in the airline industry, particularly with regard to commuter airlines, is probably a positive factor for service to Montana. The emergence of other third-level carriers desiring to serve Montana's air carrier communities is a possibility. A high degree of uncertainty, of course, exists in this volatile and growing industry and predictions are difficult to make. What does appear to be certain, however, is that because of public and carrier influence, commuters have evolved into legitimate members of the family of aviation carriers, and their role over time will be one of increasing importance--particularly in the low-density regions of the U.S. such as Montana.

It is also entirely possible that a third-level carrier will play an important role in future service to eastern Montana. At this point in time, however, no conclusions in this regard can be drawn. This plan is not in a position to speak for Frontier Airlines, since the question of the long-run intentions of Frontier can only be answered by Frontier. Given that Civil Aeronautics Board actions related to the re-regulation of the airline industry could have far-reaching effects on service to smaller communities, the possibility of third-level service for eastern Montana has be to acknowledged.

The idea of service by a commuter may not in the minds of the traveling public in eastern Montana be the most appealing answer to the long-run air service needs of these communities. However, the reality of the situation

is that certificated commuter service may prove to be a very acceptable alternative; it may in fact evolve as the only alternative.

It is realistic to presume that a commuter carrier operating under a profit motive would make every effort to effectively respond to the cities' air service desires. In doing so, it will probably attempt to meet two primary objectives: (1) provide adequate connections into the national air transportation system via flight timing and frequency; and (2) provide for early morning service to a connecting or hub-city airport (e.g. Billings) and return service to the home city in the evening. This would provide the traveler not only the capacity to connect to other destinations, but also the opportunity to conduct a day's business in a major city of interest and return home the same evening, without the requirement to overnight away from home. If a third-level carrier could accomplish these objectives, as well it might if it were to offer service at all, the communities in eastern Montana might find that the commuter was providing at least comparable, and perhaps superior, to what Frontier or any major carrier could offer.

At this point in time, it is impossible to forecast commuter route structures, which cities would be involved, timeframes, schedules or any details. It is assumed that the equipment (aircraft) in use would have performance capabilities and operating requirements in terms of runway length, parking apron size, etc., comparable to those of Frontier's Twin Otter. Therefore, it is anticipated that airport or system facility requirements for airports in a system would not be materially effected by commuter service. One possible exception under a passenger-growth assumption would be the need for terminal expansion at several locations as noted in Appendix A. No new airports would be needed in the foreseeable future in conjunction with a commuter system within the state.

B. Future Airport System Requirements

1. Air Carrier Airports

The original Montana Airport System Plan identified Butte and Missoula as

the airports in most critical need of development in the period 1972-1977. The plan recommended that a site selection study be undertaken to determine a more suitable site for the Butte Airport, and that relocation of the nav-aid facilities would be necessary at Missoula to achieve minimum approach and obstruction clearances.

Since the preparation of the original plan, it has been determined that the existing location will continue to be the long-range site for the Butte Airport, and a master plan study is now underway to determine detailed facility needs. The installation of an ILS at Missoula has satisfied the approach requirements.

Based on current conditions, forecasts, and possible future air carrier route systems, it has been determined that 12 of the 15 air carrier airport sites are in need of "major" development within five years, and the remaining three need relatively "minor" improvements.

Major development is needed at Billings, Butte, Kalispell, Miles City, Wolf Point, Sidney, Great Falls, Havre, Glasgow, Lewistown, Glendive, and West Yellowstone. Relatively minor development only is required at Bozeman, Helena, and Missoula. Refer to Figure 4-1. "Major improvements" refers to such items as paving, construction of runways, and taxiways, apron area expansions, and terminal building construction. Detailed development recommendations are presented in Appendix A. There is no need in the foreseeable future for new air carrier airports.

2. General Aviation Airports

The state's system of general aviation airports is accommodating demand fairly well at present. However, eight new airports are needed, including four to replace existing airports (Ashland, Ekalaka, Grass Range, and Poplar) and four at new locations (Cascade, Chico, Colstrip and Fort Peck Shoreline.)

MONTANA AIR CARRIER AIRPORT IMPROVEMENT NEEDS

FOR THE FIVE-YEAR PERIOD 1978-1982

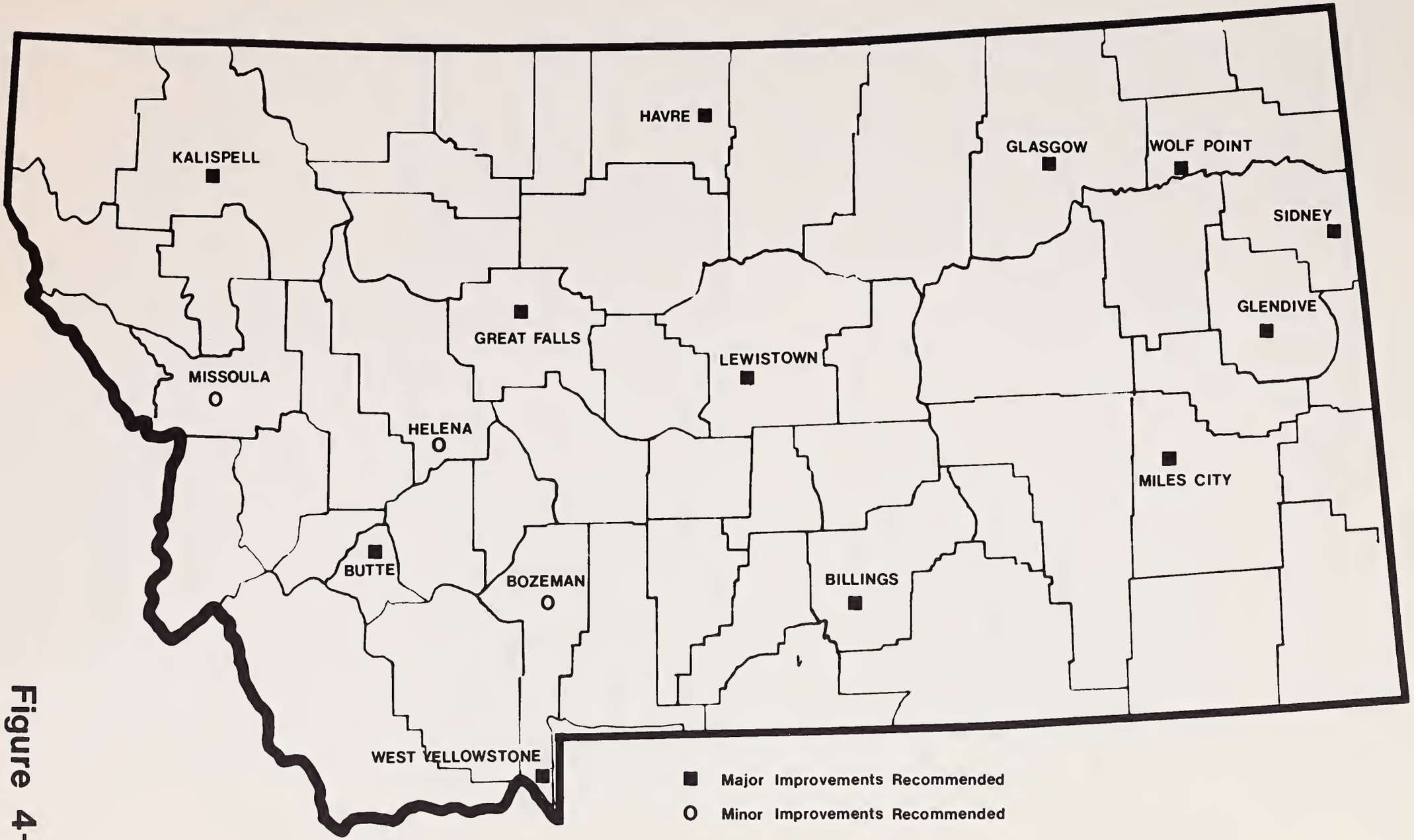


Figure 4-1

Major improvements and additions are necessary at many locations. G.A. airports needing major improvements are identified on Figure 4-2. Recommended new airports are shown on Figure 4-3.

Figure 4-4 shows locations in the state which have been classified as "endangered airports." These airports have very serious problems to the extent that they could disappear without proper corrective action. At these locations, "no development" is recommended for the five-year period simply to avoid misallocating funds for patch-work development, when relocation or major alterations may be needed to save the airports. In the five-year period, these airports should be studied to determine the best long-range development plan. For some of these airports, this could mean relocation to a new site because the problems of today have been created by an inadequate site initially. Without proper planning action, these "endangered airports" could disappear within ten years.

III. Five-Year Needs Plan

Detailed needs for the Montana Airport System on an airport-by-airport basis for the period 1978 to 1982 are shown in Appendix A. The information in this appendix represents a culmination of the update effort, since the development recommendations are based upon the work in the update, the original system plan, previous update efforts, and information and input by the Montana Aeronautics Division. There is no attempt to prioritize the development, to estimate the costs, or to address financial feasibility. Ideally, all of the improved projects should occur as listed, although is it recognized that the state must deal with the practical realities of implementation, resulting in project delays in some cases.

GENERAL AVIATION AIRPORTS NEEDING IMPROVEMENTS

IN THE FIVE YEAR PERIOD 1978-1982

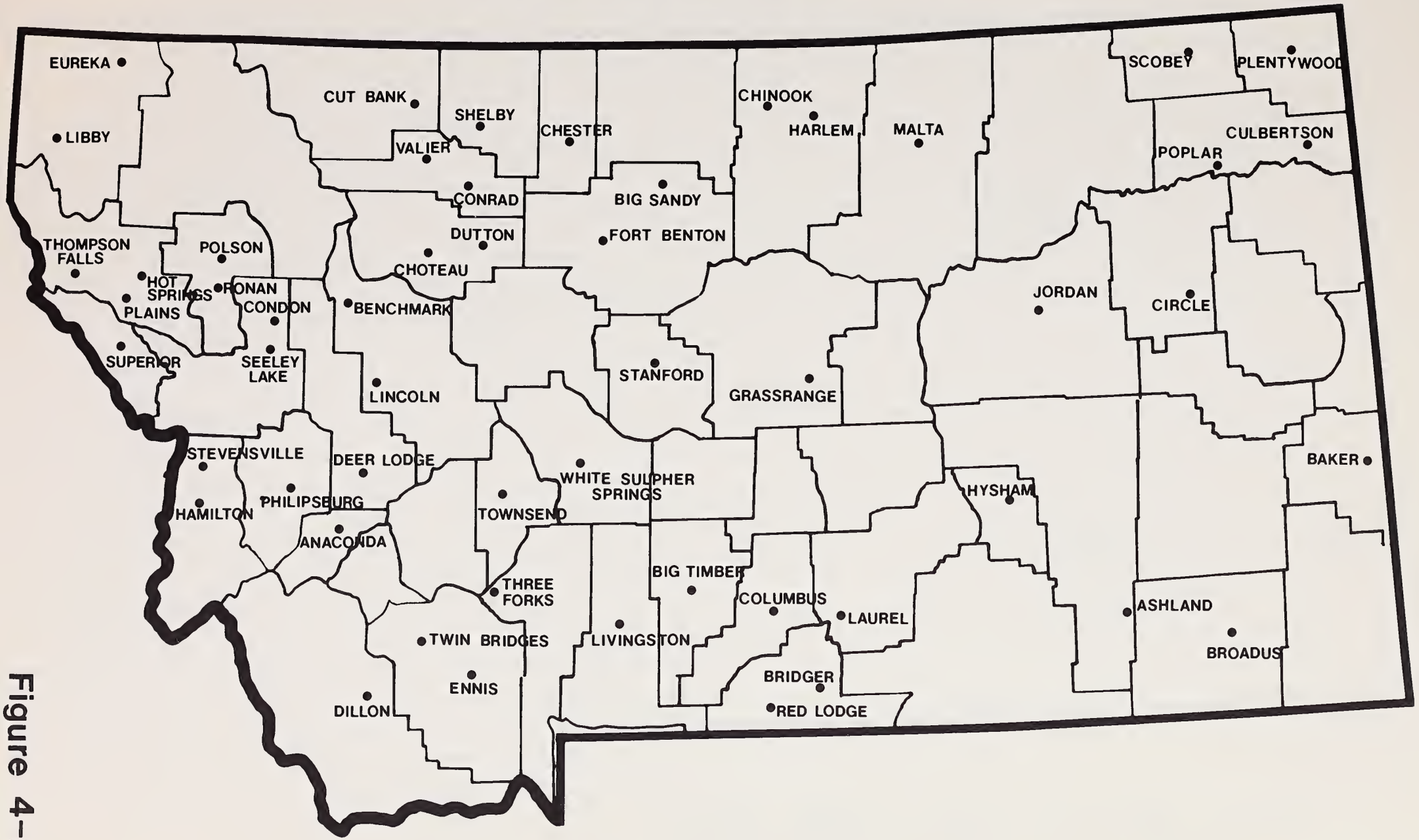


Figure 4-2

RECOMMENDED NEW MONTANA AIRPORTS

FOR THE FIVE YEAR PERIOD 1978-1982

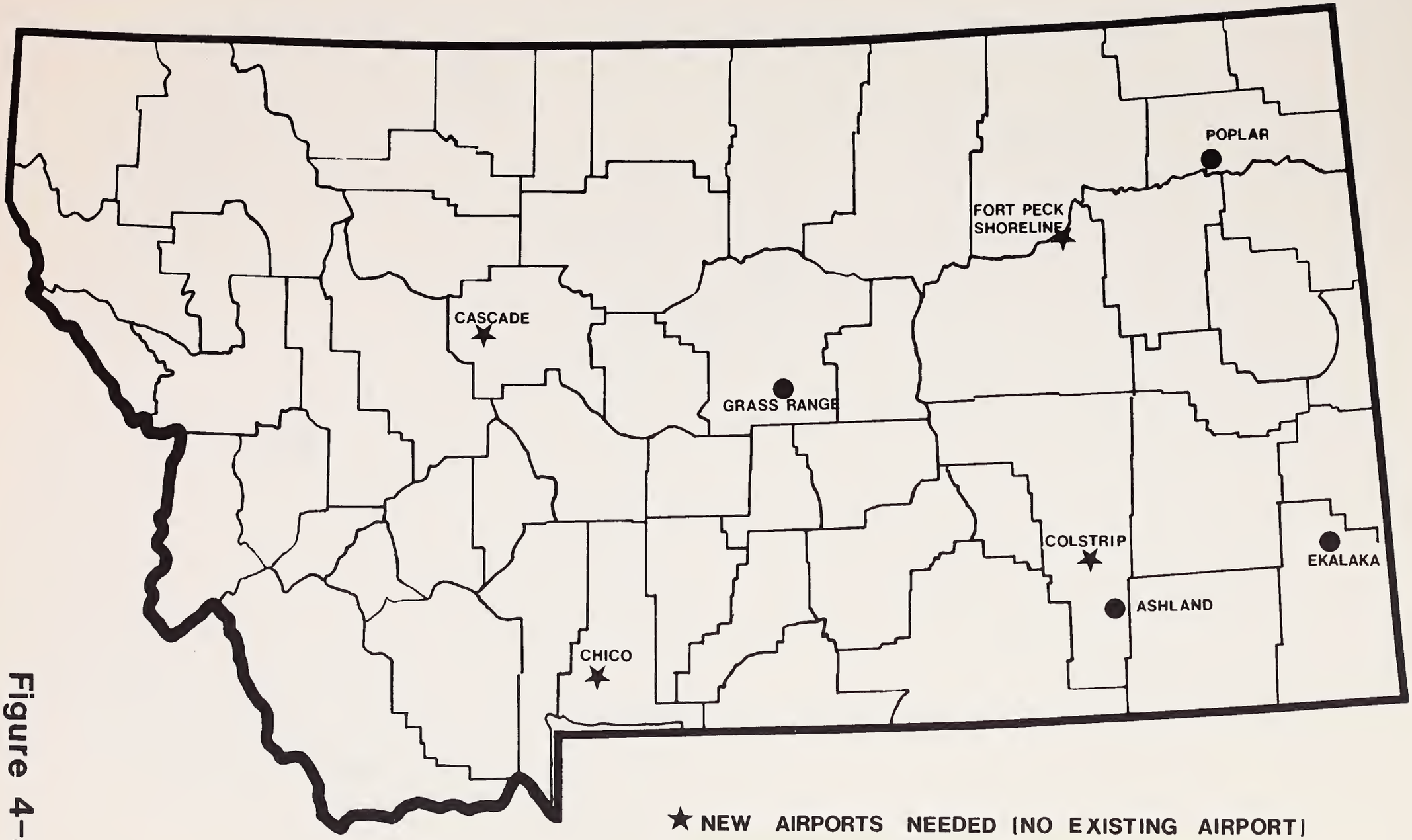


Figure 4-3

ENDANGERED AIRPORTS

REQUIRE IMMEDIATE PLANNING ACTION AND MAJOR LONG RANGE DEVELOPMENT

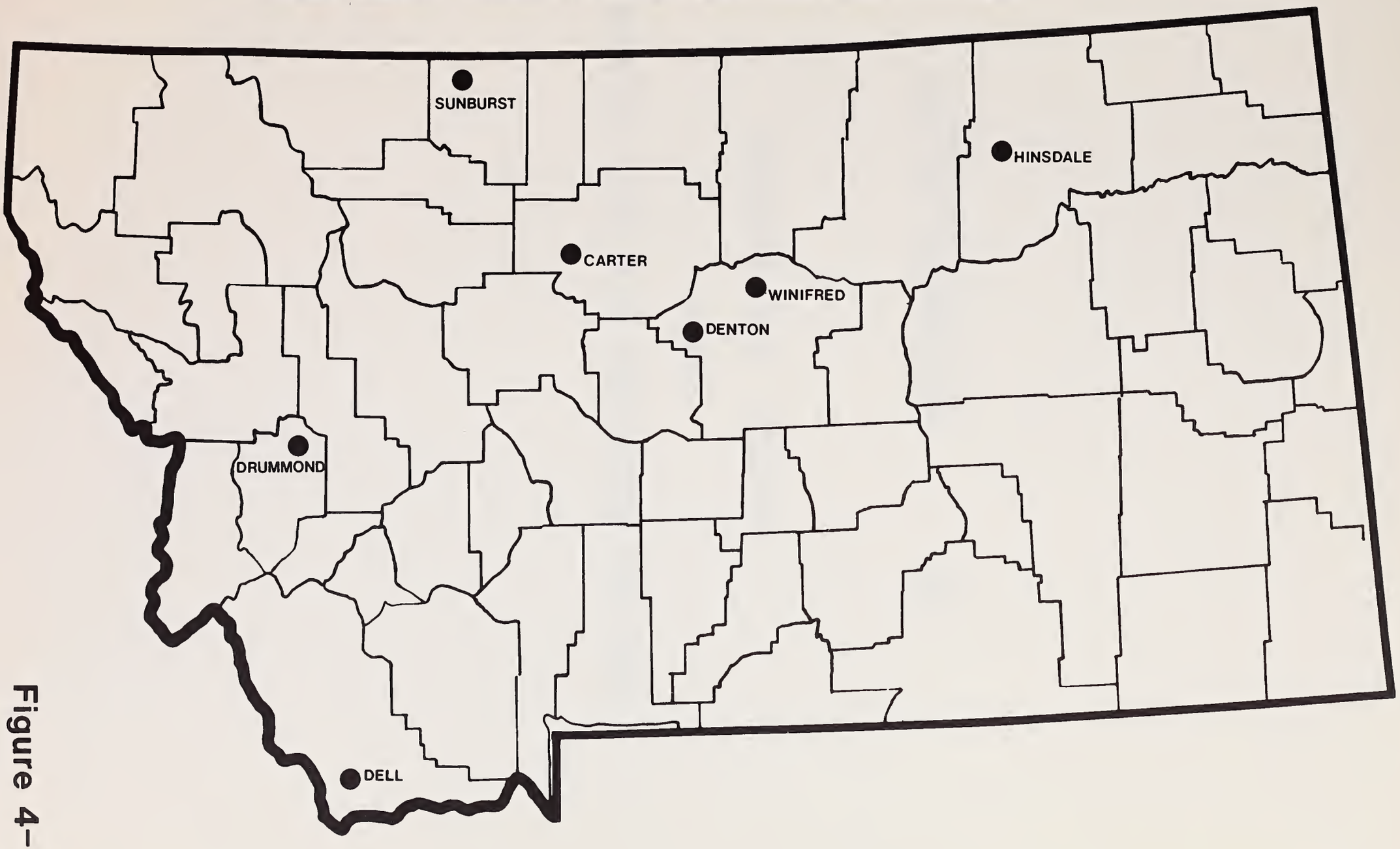
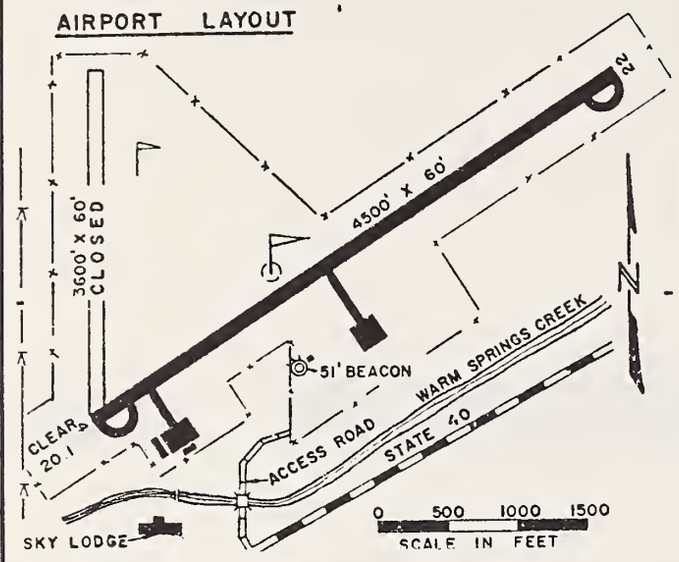
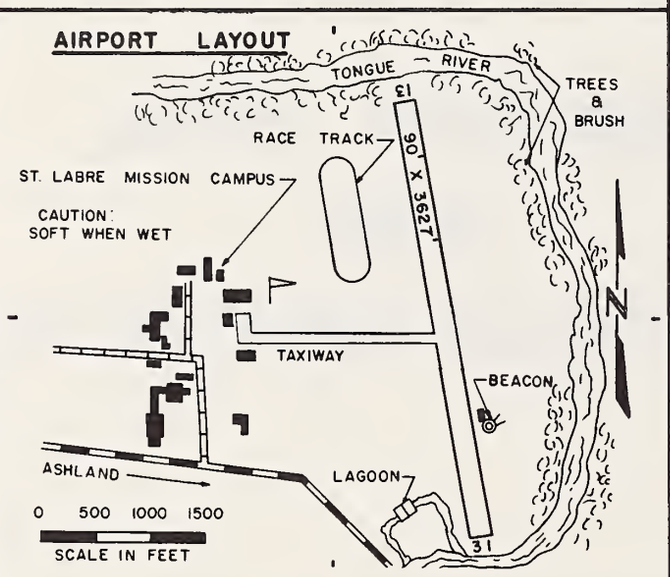
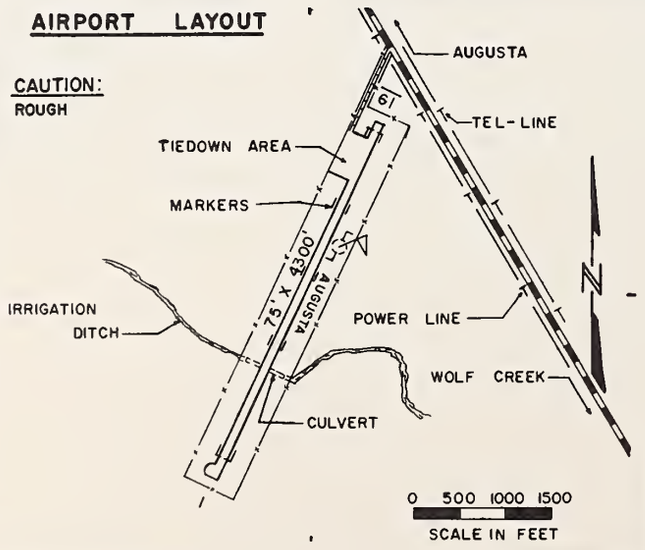


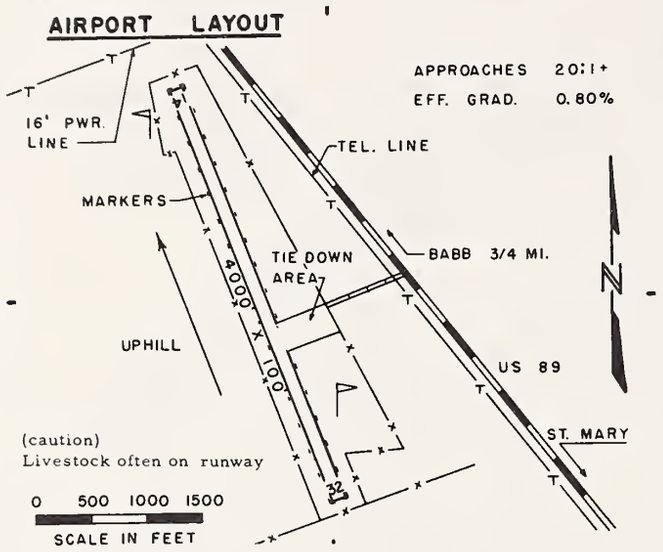
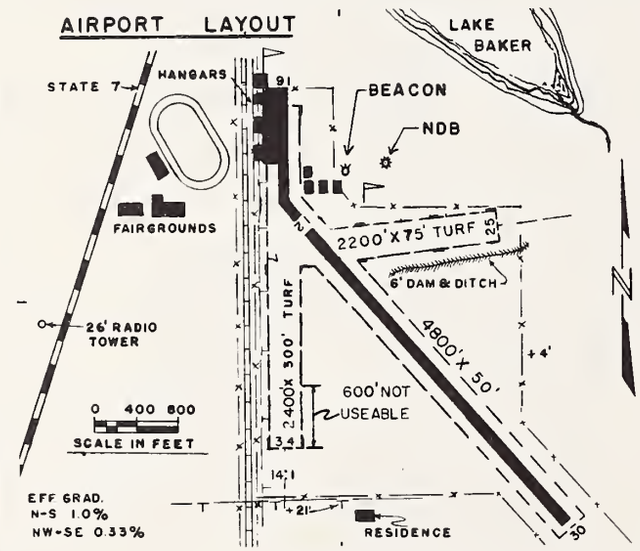
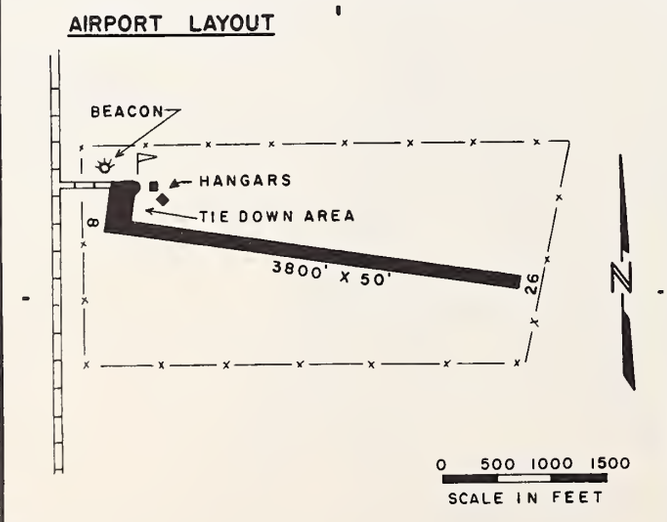
Figure 4-4

APPENDIX A

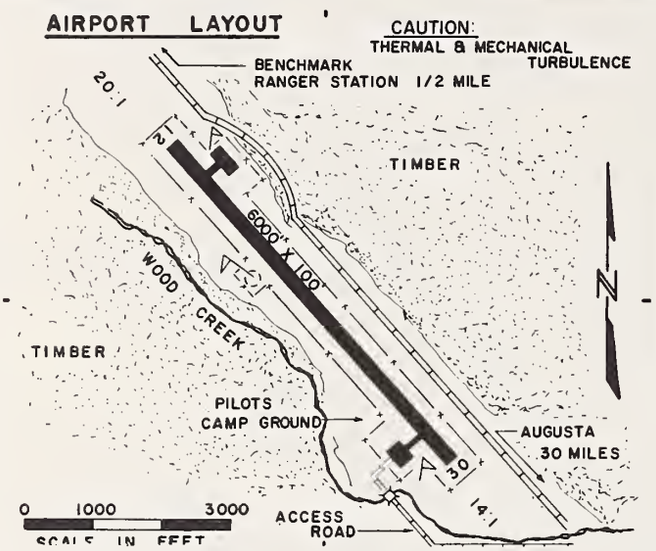
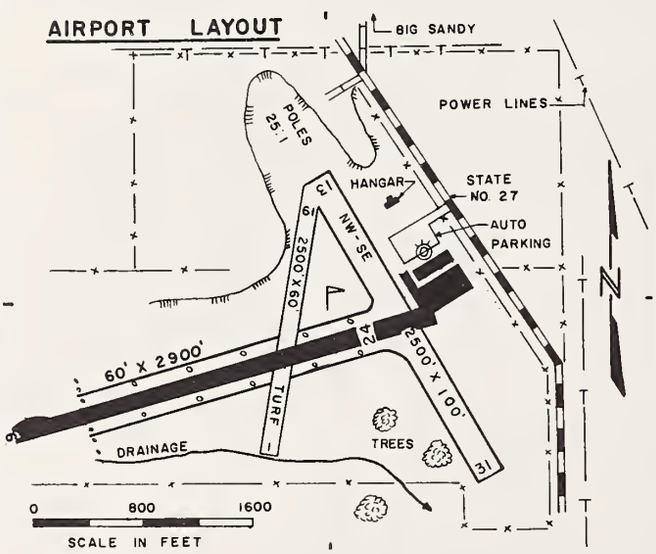
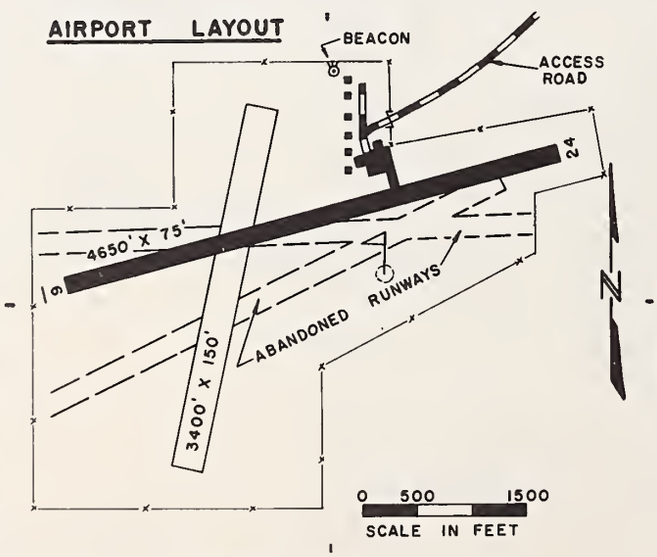
AIRPORT DATA
AND
FIVE-YEAR NEEDS PLAN

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Anaconda Airport Name: Anaconda County: Deer Lodge				4/22 17/35	4500 x 60 3600 x 60	Asph. Turf	
Site No.	12243						
Elevation	5030						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Ashland Airport Name: St. Labre Mission County: Rosebud				13/31	3627 x 90	Grvl.	
Site No.	12245.7						
Elevation	2931						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Augusta Airport Name: Augusta County: Lewis & Clark				1/19	4300 x 75	Turf	
Site No.	12247.2						
Elevation	4145						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

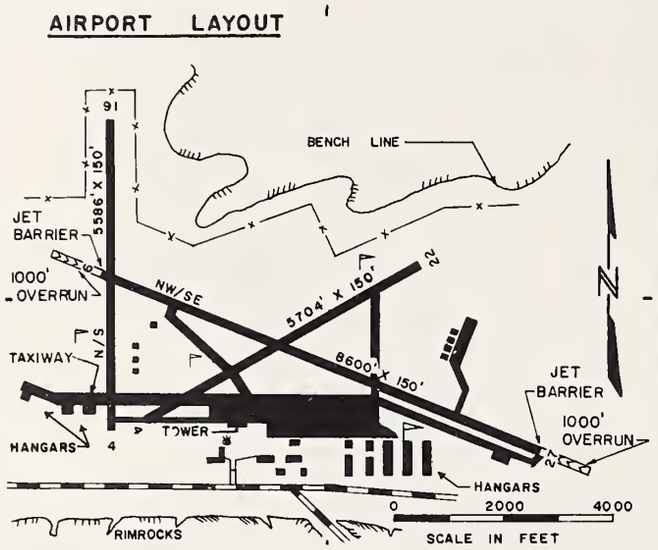
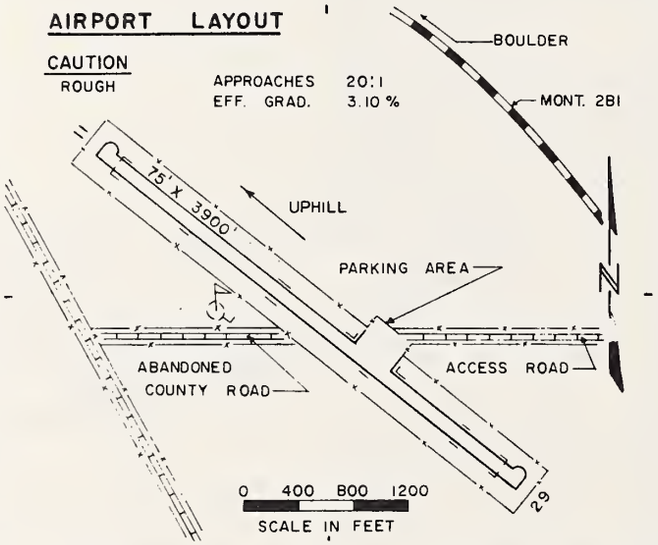
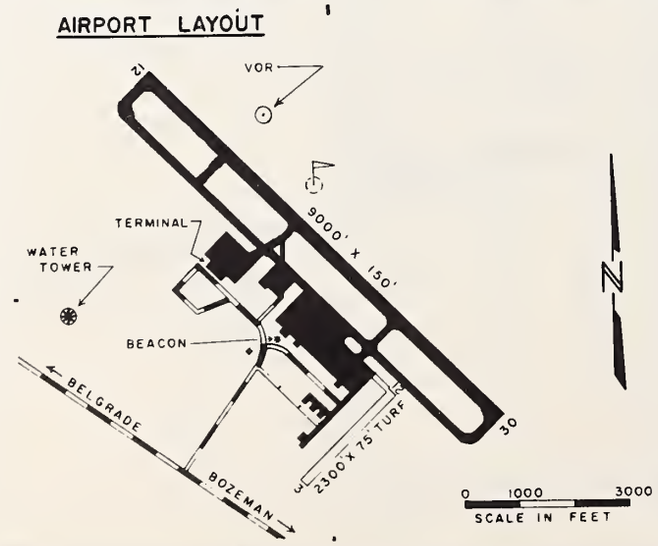
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	3.0	5.0	5.8	6.6	7.6	Paving: Resurface 4/22
Enplanements	2.1	3.7	4.4	5.4	6.5	Approach Aids: VASI-2, 04
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	3.0	5.0	5.8	6.6	7.6	
GENERAL AVIATION						
Operation	1.0	1.2	1.4	1.6	1.8	Construct new airport at new location
Enplanements	.8	1.0	1.2	1.5	1.8	
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	1.0	1.2	1.4	1.6	1.8	
GENERAL AVIATION						
Operations	.2	.6	.7	.8	.9	No recommended development
Enplanements	.3	.6	.7	.9	1.0	
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.6	.7	.8	.9	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Babb Airport Name: Babb County: Glacier				4/32	4000 x 100	Turf	
Site No.	12252						
Elevation	4500						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Baker Airport Name: Baker Municipal County: Fallon				7/25	2200 x 75	Turf	
Site No.	12253						
Elevation	2990						
Role	77	82		12/30	4800 x 50	Asph	
System	F-3	F-3					
Operational	BU	BU		16/34	2400 x 300	Turf	NDB
City: Belle Creek Airport Name: Belle Creek County: Powder River				8/26	3800 x 50	Asph	
Site No.	12280.2						
Elevation	3678						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

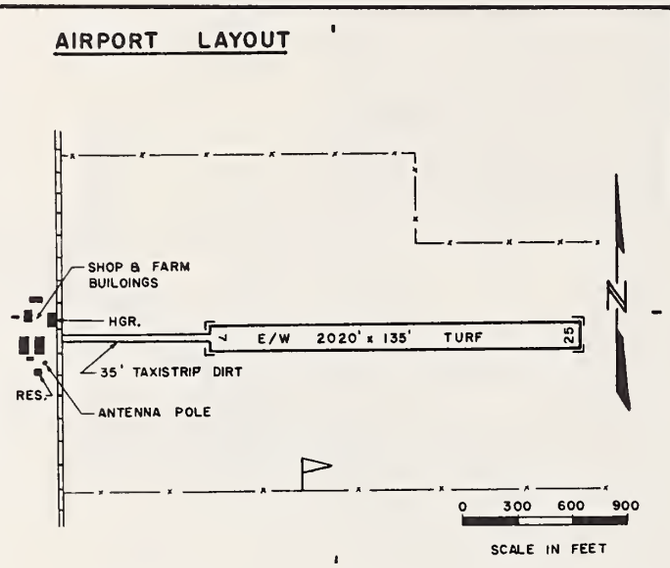
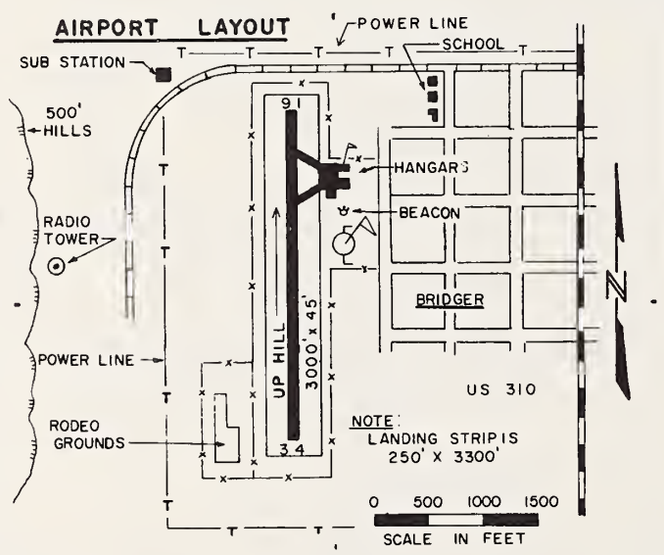
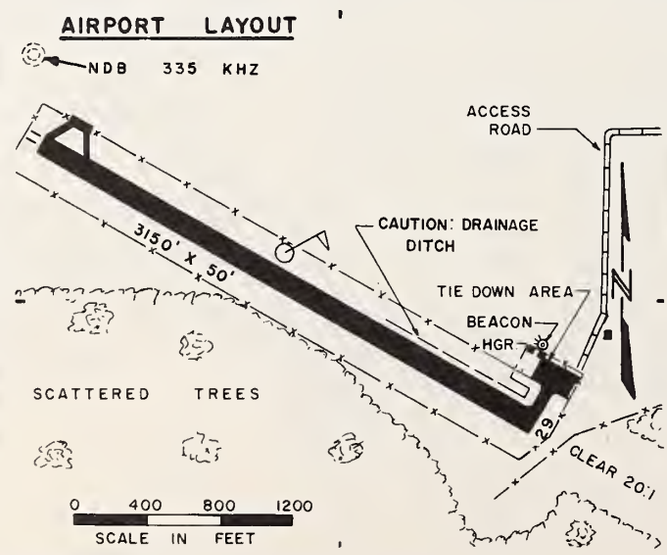
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.2	.5	.6	.7	.8	
Enplanements	.3	.6	.7	.9	1.0	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.5	.6	.7	.8	
GENERAL AVIATION						
Operation	14.1	18.4	21.2	24.3	28.0	
Enplanements	9.0	12.7	15.4	18.6	22.5	Paving: Resurface 12/30, and taxiway, apron Construct additional apron Construct parallel taxiway Land: Acquire land for all clear zones Lighting: MIRL, 12/30 Approach Aids: VASI-2, Rwy 7, 12 Other: Fencing; follow Master Plan Guidelines
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	14.1	18.4	21.2	24.3	28.0	
GENERAL AVIATION						
Operations	.7	.9	1.0	1.2	1.4	
Enplanements	.6	.7	.9	1.1	1.3	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.7	.9	1.0	1.2	1.4	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Benchmark Airport Name: Benchmark County: Lewis & Clark				12/30	6000 x 100	Asph	
Site No.	12256.6						
Elevation	5434						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Big Sandy Airport Name: Big Sandy County: Chouteau				06/24 13/31 01/19	2900 x 60 2500 x 100 2500 x 60	Asph Turf Turf	
Site No.	12259						
Elevation	2700						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Big Timber Airport Name: Big Timber County: Sweet Grass				06/24 17/35	4650 x 75 3400 x 150	Asph Turf	
Site No.	12262						
Elevation	4482						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

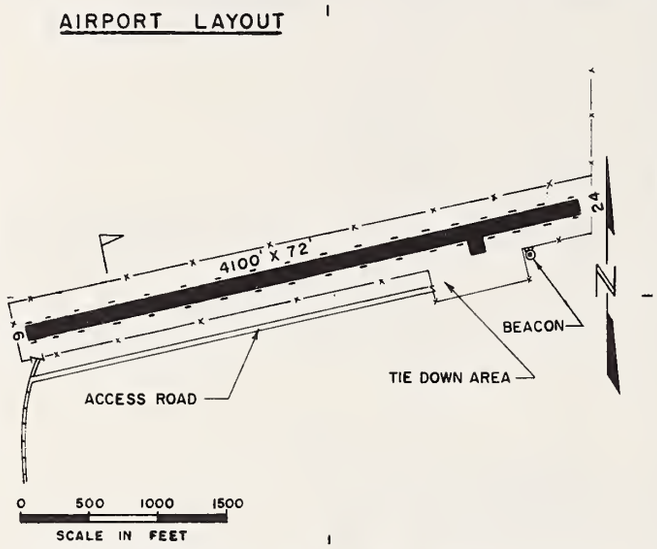
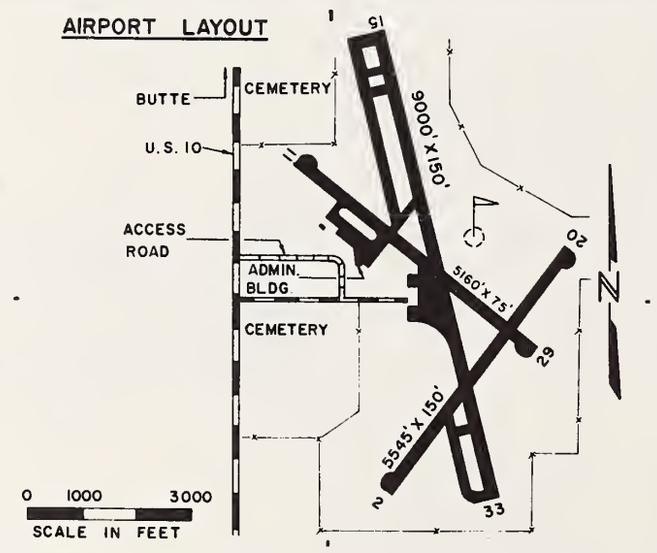
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.2	.2	.2	.3	.3	
Enplanements	.3	.3	.4	.4	.5	
AIR CARRIER						Paving: Resurface 12/30 Land: Flood control
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.2	.2	.3	.3	
GENERAL AVIATION						
Operation	4.9	6.8	7.8	9.0	10.0	
Enplanements	3.1	4.6	6.6	6.7	8.1	
AIR CARRIER						Paving: Resurface 6/24 and apron, taxiway Land: Ext. 6/24, Clear Zone, End 6 Lighting: MIRL 6/24 Approach Aids: VASI-2, 24
Operations						
Enplanments						
TOTAL OPERATIONS	4.9	6.8	7.8	9.0	10.0	
GENERAL AVIATION						
Operations	6.0	10.3	11.9	13.6	15.7	
Enplanements	4.2	7.6	9.2	11.1	13.4	
AIR CARRIER						Paving: Resurface 6/24 Lighting: MIRL - 17/35 & 6 Other: Fencing
Operations						
Enplanements						
TOTAL OPERATIONS	6.0	10.3	11.9	13.6	15.7	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Billings Airport Name: Logan International County: Yellowstone				04/22 09/27 16/34	5704 x 150 8600 x 150 5586 x 150	Asph Asph Asph	ALSAF V4-L VORTAC NDB VOR
Site No.	12265						
Elevation	4661						
Role	77	82					
System	S2	S1					
Operational	B2	B2					
City: Boulder Airport Name: Boulder County: Jefferson				11/29	3600 x 75	Turf	
Site No.	12274.1						
Elevation	5068						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Bozeman Airport Name: Gallatin Field County: Gallatin				12/30 3/21	9000 x 150 2300 x 75	Asph Turf	V-4L MALSR NDB VOR
Site No.	12278						
Elevation	4462						
Role	77	82					
System	S3	S2					
Operational	B3	B2					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	116	152	192	239	290	
Enplanements	107	146	198	267	351	
AIR CARRIER						Paving: Construct GU 9R/27L, resurface taxiway, apron Land: Clear Zone, 9R, general development Lighting: MIRL 9R/27L, taxiway Buildings: Expand terminal building Approach Aids: VASI-2, 9R/27L, 4/22 Other: Fencing, roads, parking, sewer
Operations	19.9	21.0	22.6	23.8	25.0	
Enplanements	324	485	639	777	942	
TOTAL OPERATIONS	136	173	215	263	315	
GENERAL AVIATION						
Operation	.1	.6	.7	.8	.9	
Enplanements	.1	.6	.7	.9	1.0	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.1	.6	.7	.8	.9	
GENERAL AVIATION						
Operations	53.5	75	100	128	163	
Enplanements	37.5	55	77	104	139	
AIR CARRIER						Paving: Construct additional parking apron (G.A.) Land: Acquire land Other: Security fence FBO area, plant tree buffer
Operations	5.5	7.5	9.1	11.4	13.9	
Enplanements	60.8	110	166	240	335	
TOTAL OPERATIONS	59.0	82.5	109	139	177	

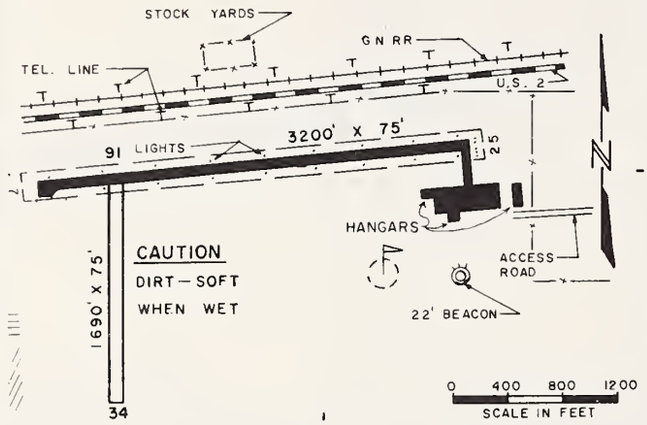
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Brady Airport Name: Woods County: Pondera				7/25	2020 x 135	Turf	
Site No.	12278.11						
Elevation	3350						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Bridger Airport Name: Bridger Municipal County: Carbon				16/34	3000 x 45	Asph	
Site No.	12279						
Elevation	3713						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Broadus Airport Name: Broadus County: Powder River				11/29	3150 x 50	Asph	NDB
Site No.	12280.11						
Elevation	2992						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					

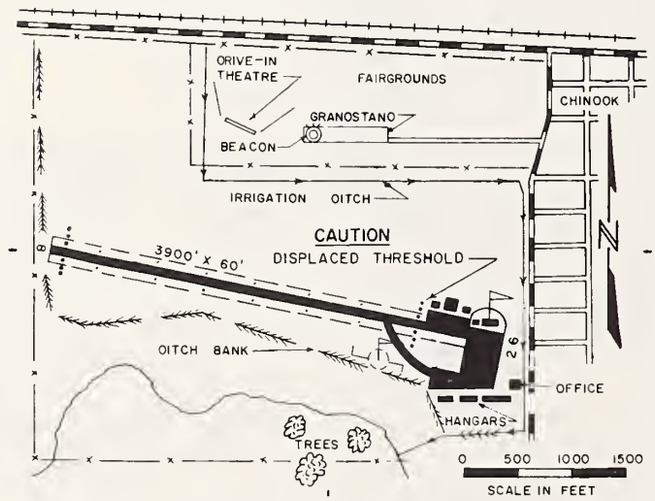
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	.3	.4	.5	.6	.8	
Enplanements	.4	.6	.8	1.0	1.4	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.3	.4	.5	.6	.8	
GENERAL AVIATION						
Operation	.5	1.1	1.3	1.5	1.7	
Enplanements	.4	.9	1.1	1.3	1.6	
AIR CARRIER						Paving: Resurface 16/34 & extend Land: Extend 16/34 Lighting: MIRL Approach Aids: VASI-2, 16 Other: Consider possible need for new site
Operations						
Enplanments						
TOTAL OPERATIONS	.5	1.1	1.3	1.5	1.7	
GENERAL AVIATION						
Operations	7.3	14.3	16.5	18.9	21.8	
Enplanements	4.9	10.5	12.7	15.4	18.6	
AIR CARRIER						Paving: Extend & widen 11/29 Land: Clear Zone 11/29 Lighting: MIRL 11/29 Approach Aids: VASI-2, 11 & 29 Other: Fencing
Operations						
Enplanements						
TOTAL OPERATIONS	7.3	14.3	16.5	18.9	21.8	

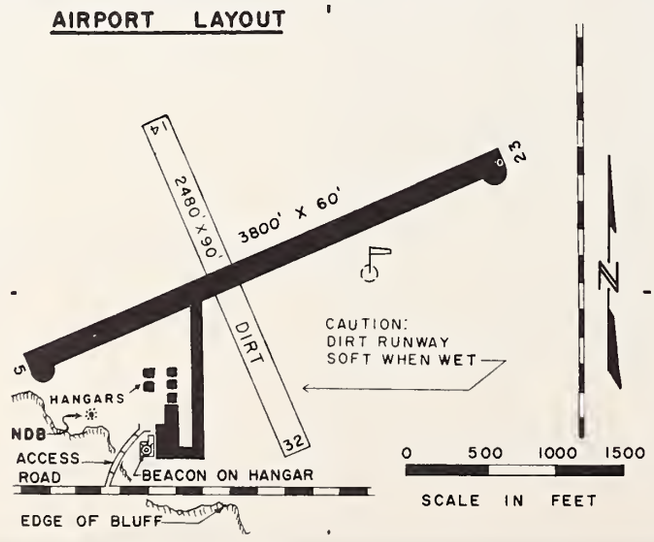
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Browning Airport Name: Starr-Browning County: Glacier				06/24	4000 x 95	Turf	
Site No.	12283.1						
Elevation	4650						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Butte Airport Name: Bert Mooney County: Silver Bow				02/20	5545 x 150	Asph	
				11/29	5160 x 75	Asph	V-2
				15/33	9000 x 150	Asph	V-4
Site No.	12286						VORTAC
Elevation	5554						VOR
Role	77	82					
System	S-3	S-3					
Operational	B3	B3					
City: Carter Airport Name: Carter County: Chouteau				07/20	1900 x 75	Turf	
Site No.	12288						
Elevation	3000						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.3	2.0	2.3	2.6	3.0	
Enplanements	.2	1.5	1.8	2.1	2.6	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.3	2.0	2.3	2.6	3.0	
GENERAL AVIATION						
Operation	40.6	52.4	64.3	77.9	88.2	
Enplanements	18.2	24.4	30.5	40.5	42.7	
AIR CARRIER						Paving: Complete parallel taxiway, 15/33; construct parallel taxiway, 11/29; construct additional parking apron (G.A.) and terminal apron; expand auto parking Land: Clear Zone, 15/33, 11/29 general development Lighting: MITL, 15/33, 11/29 beacon Other: Relocate access road; fencing; marking
Operations	5.8	6.4	6.9	7.6	8.3	
Enplanments	45.5	55.0	63.0	72.0	81.0	
TOTAL OPERATIONS	46.4	58.8	71.2	85.5	96.5	
GENERAL AVIATION						
Operations	.1	.1	.1	.1	.2	
Enplanements	.1	.1	.2	.2	.3	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.1	.1	.1	.2	

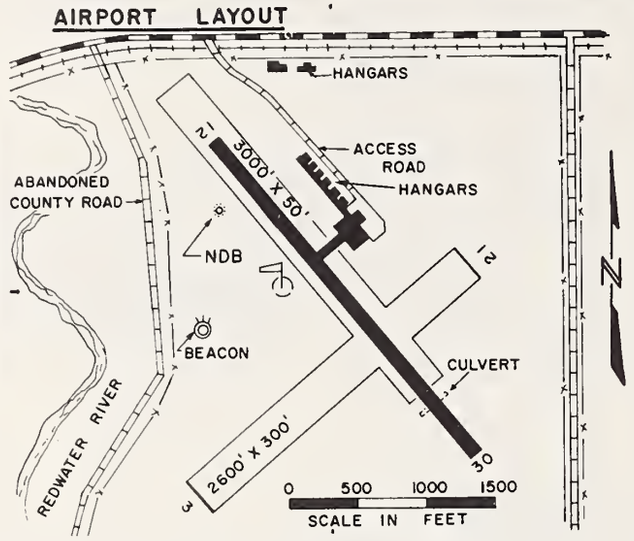
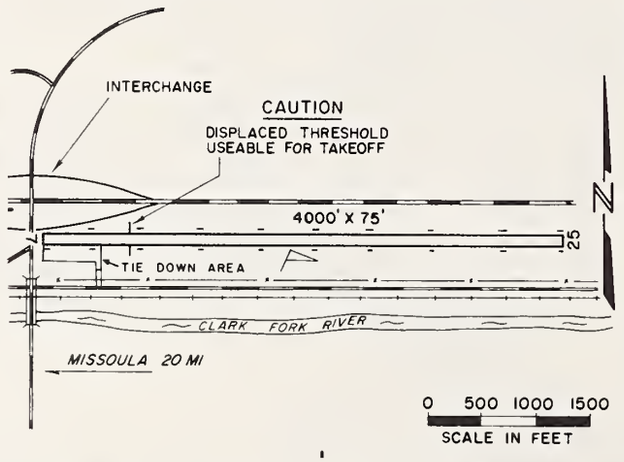
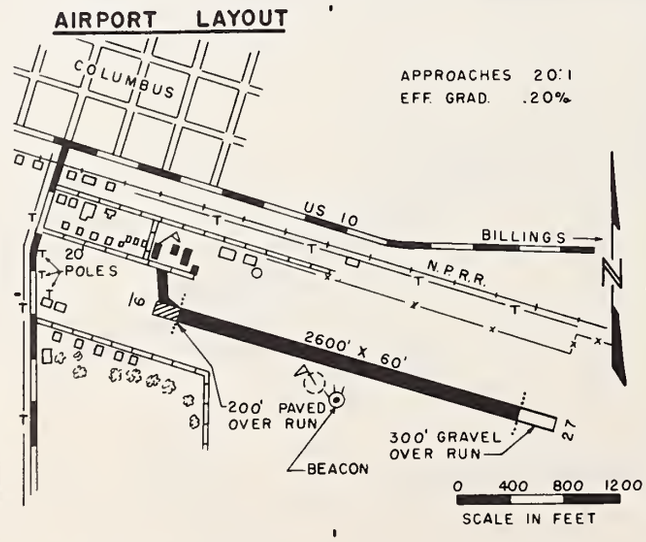
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Chester Airport Name: Liberty County County: Liberty			AIRPORT LAYOUT	07/25 16/34	3200 x 75 1690 x 75	Asph Turf	
Site No.	12293						
Elevation	3169						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Chinook Airport Name: Chinook Municipal County: Blaine			AIRPORT LAYOUT	08/26	3900 x 60	Asph	
Site No.	12295.1						
Elevation	2410						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Choteau Airport Name: Choteau County: Teton			AIRPORT LAYOUT	05/23 14/32	3800 x 60 2480 x 90	Asph Turf	NDB
Site No.	12296						
Elevation	3945						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					



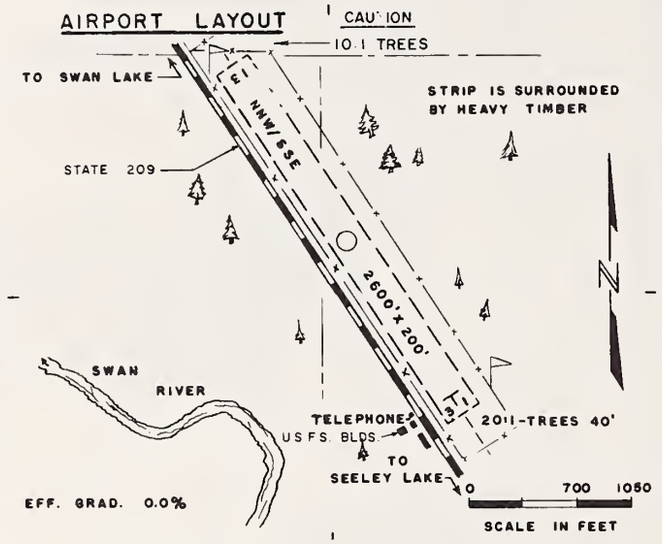
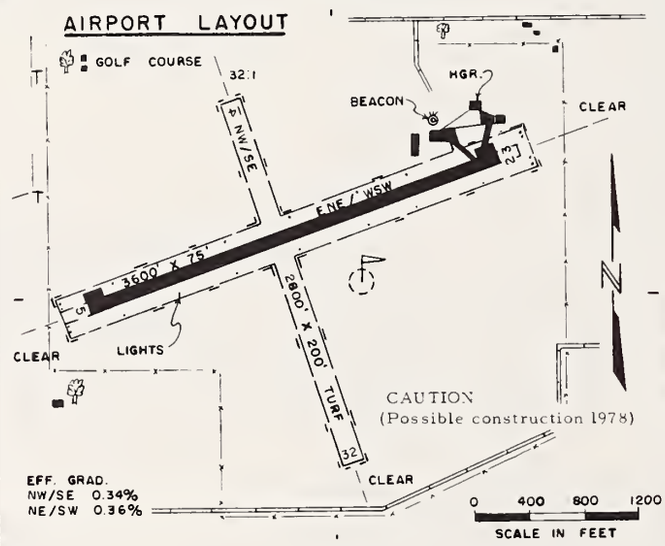
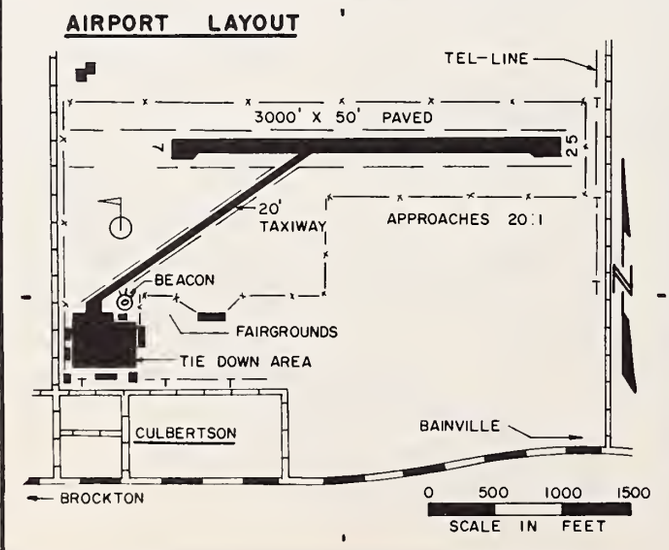




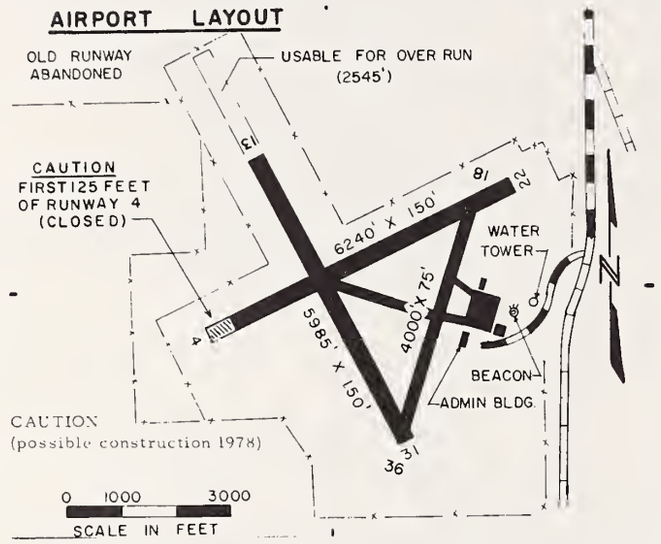
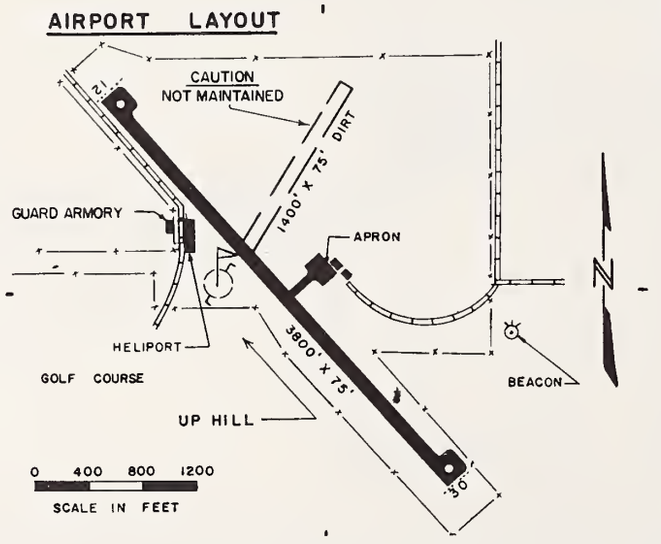
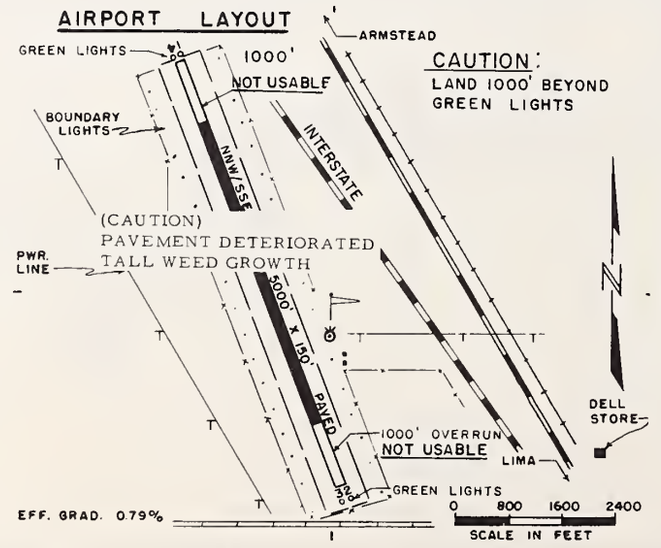
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	8.9	10.1	11.6	13.3	15.3	
Enplanements	6.2	7.4	8.9	10.8	13.1	Paving: Resurface & extend 7/25; pave 16/34 Land: Clear Zone, 16/34, 7/25 Lighting: MIRL 7, 16/34 Approach Aids: VASI-2, 25 Other: Fencing, marking
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	8.9	10.1	11.6	13.3	15.3	
GENERAL AVIATION						
Operation	15.1	16.5	19.0	21.8	25.0	
Enplanements	10.4	11.6	18.1	17.0	20.6	Paving: Extend & widen 8/26, apron, taxiway Land: Clear Zone & general development Lighting: MIRL - 8/26 Approach Aids: VASI-2, 8, 26 Other: Obstruction removal 26, fencing
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	15.1	16.5	19.0	21.8	25.0	
GENERAL AVIATION						
Operations	9.0	13.6	15.6	18.0	20.7	
Enplanements	6.3	9.2	11.1	13.5	16.3	Paving: Extend & widen 5/23, pave 14/32, taxiway, apron Land: Clear Zone - 5/23, 14/32 Lighting: MIRL 14/32, Extend 5/23 Approach Aids: VASI-2, 5/23, 14/32 Other: Fencing
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	9.0	13.6	15.6	18.0	20.7	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Circle Airport Name: McCone County County: McCone				03/21 12/30	2600 x 300 3000 x 50	Turf Asph	NDB
Site No.	12298						
Elevation	2426						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Clinton Airport Name: Eliott Field County: Missoula				07/25	4000 x 75	Turf	
Site No.	12298.6						
Elevation	3540						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Columbus Airport Name: Columbus County: Stillwater				09/27	2600 x 60	Asph	
Site No.	12304						
Elevation	3575						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

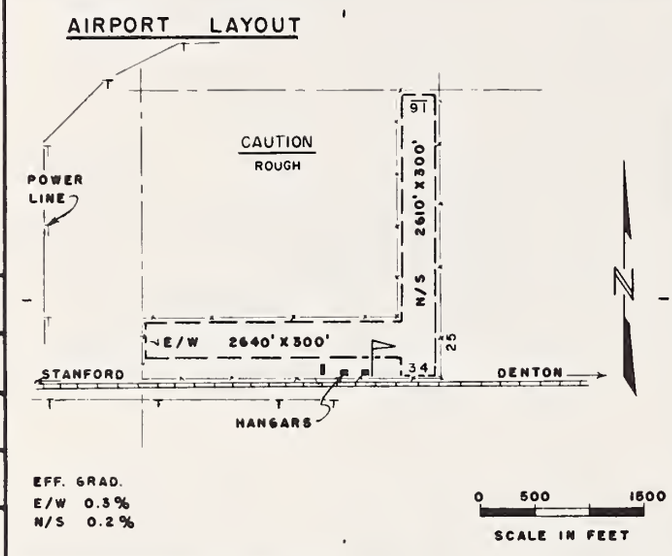
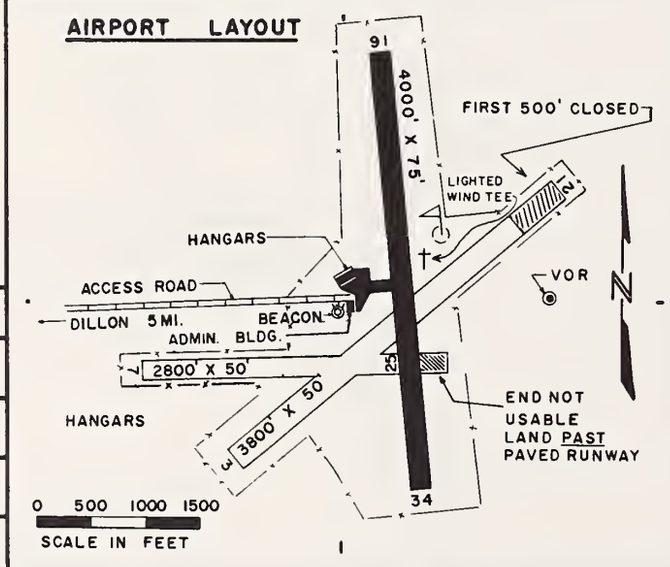
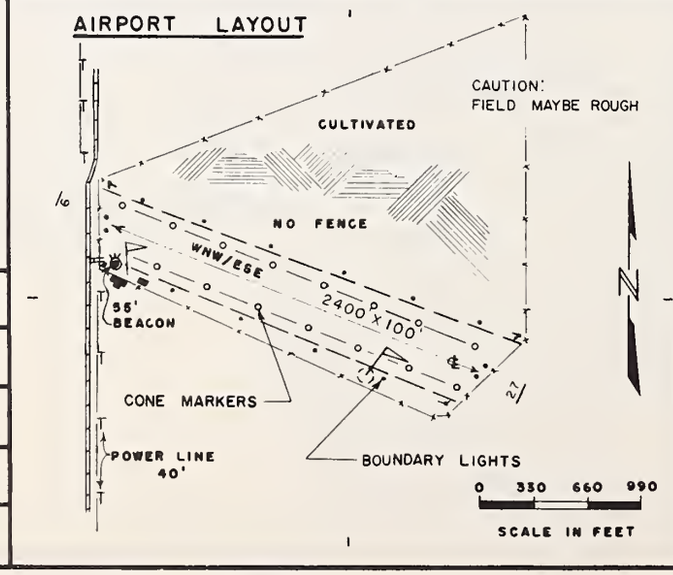
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	7.7	10.9	15.0	17.2	19.5	
Enplanements	2.7	4.3	6.5	8.3	10.3	
AIR CARRIER						Paving: Extend & widen 12/30 Land: Clear Zone - 12, 21, 30 Lighting: MIRL - 12/30 Approach Aids: VASI-2, 12/30 Other: Road relocation & fencing
Operations						
Enplanements						
TOTAL OPERATIONS	7.7	10.9	15.0	17.2	19.5	
GENERAL AVIATION						
Operation	.2	.3	.4	.4	.5	
Enplanements	.3	.4	.5	.7	.8	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.2	.3	.4	.4	.5	
GENERAL AVIATION						
Operations	4.5	5.8	6.7	7.7	8.8	
Enplanements	3.1	4.1	5.0	6.0	7.2	
AIR CARRIER						Paving: Extend & resurface 9/27, resurface taxiway & apron Land: Clear Zone - 27 Lighting: MIRL - 9/27 Approach Aids: VASI-2, 9/27 Other: Relocate powerline, fencing
Operations						
Enplanements						
TOTAL OPERATIONS	4.5	5.8	6.7	7.7	8.8	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Condon Airport Name: Condon USFS County: Missoula				13/31	2600 x 200	Turf	
Site No.	12306						
Elevation	3684						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Conrad Airport Name: Conrad County: Pondera				05/23 14/32	3600 x 75 2800 x 200	Asph Turf	NDB
Site No.	12308						
Elevation	3535						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Culbertson Airport Name: Big Sky Field County: Roosevelt				07/25	3000 x 50	Asph	
Site No.	12311						
Elevation	1953						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

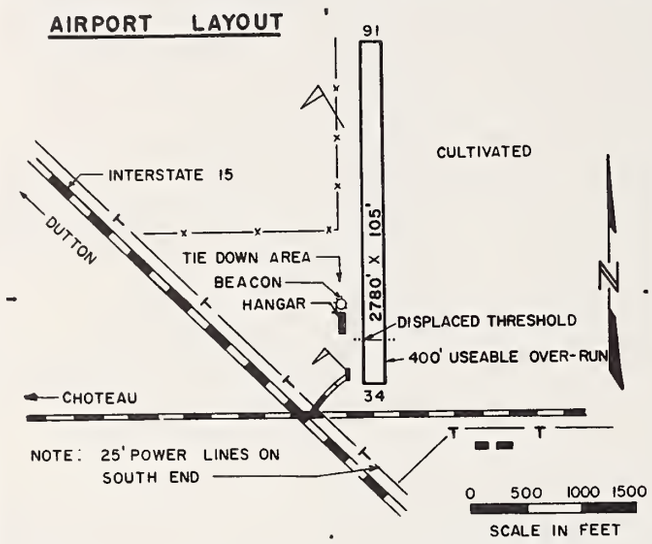
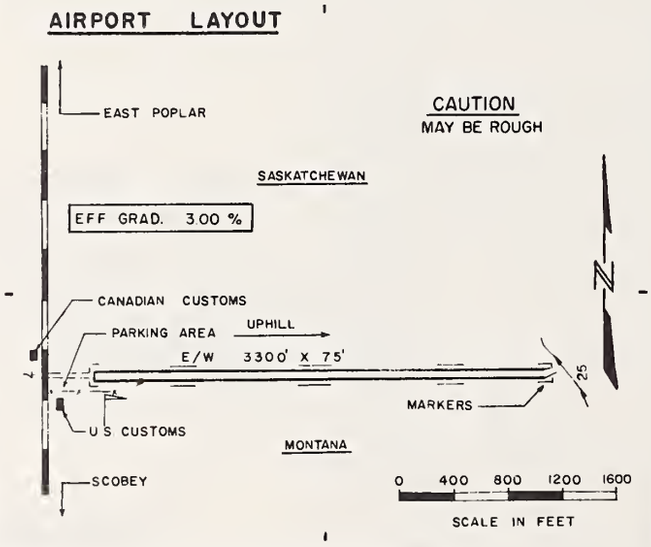
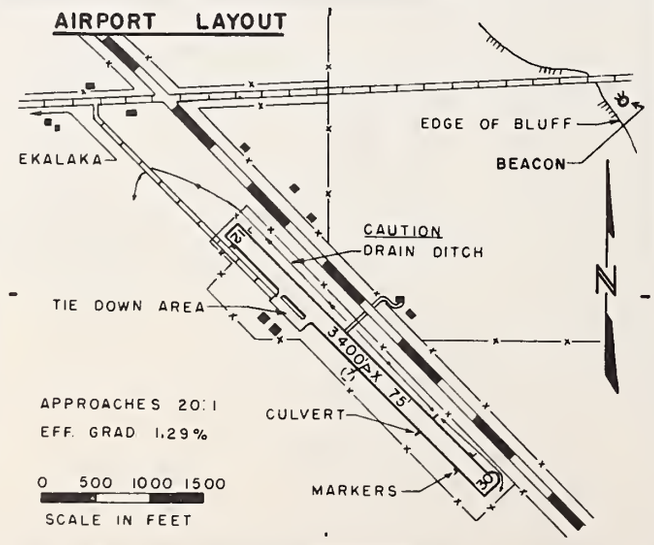
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.1	.2	.2	.3	.3	
Enplanements	.1	.3	.4	.4	.5	
AIR CARRIER						Extend Runway 13/31 and develop clear zones
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.2	.2	.3	.3	
GENERAL AVIATION						
Operation	10.5	13.4	16.0	18.6	21.2	
Enplanements	2.4	3.5	4.8	6.3	7.7	
AIR CARRIER						Paving: Construct parallel taxiway Land: Clear Zone - 5 & 23
Operations						
Enplanments						
TOTAL OPERATIONS	10.5	13.4	16.0	18.6	21.2	
GENERAL AVIATION						
Operations	7.9	9.0	10.4	12.0	13.8	
Enplanements	5.5	6.6	8.0	9.8	11.8	
AIR CARRIER						Paving: Extend 7/25 Land: Clear Zone end 25 Lighting: MIRL, 7/25 Approach Aids: VASI-2, 7
Operations						
Enplanements						
TOTAL OPERATIONS	7.9	9.0	10.4	12.0	13.8	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Cut Bank Airport Name: Cut Bank County: Glacier				04/22 13/31 18/36	6240 x 150 5985 x 150 4000 x 75	Asph Asph Asph	VORTAC NDB VOR
Site No.	12315						
Elevation	3854						
Role	77	82					
System	F-3	F-3					
Operational	GU	GU					
City: Deer Lodge Airport Name: Deer Lodge City/County County: Powell				12/30	3800 x 75	Asph	
Site No.	12318						
Elevation	4688						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Dell Airport Name: Dell Flight Strip County: Beaverhead				14/32	5000 x 150	Asph	
Site No.	12322						
Elevation	6007						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

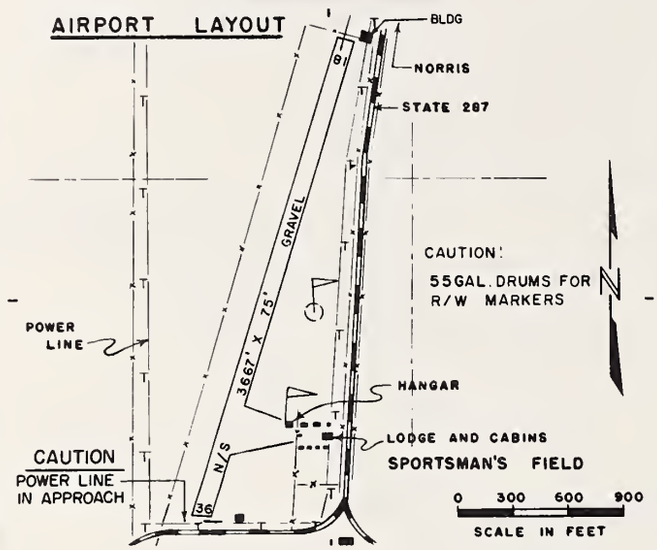
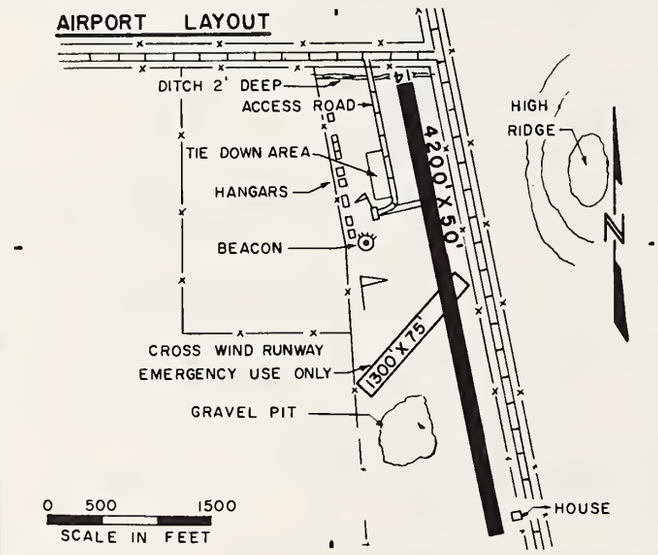
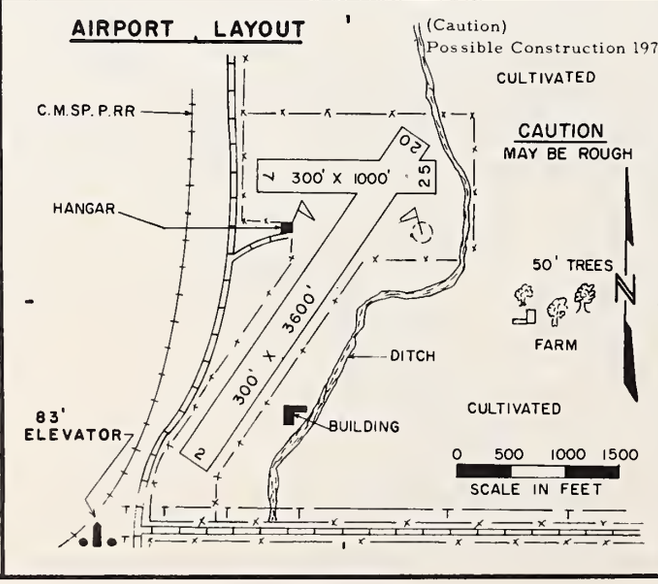
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	6.9	8.4	9.7	11.2	12.9	
Enplanements	4.8	6.2	7.5	9.1	11.0	
AIR CARRIER						Paving: Resurface 13/31, taxiway, apron Lighting: MIRL, 13/31 Approach Aids: VASI-2, 4, 22 Other: Marking Rwy
Operations						
Enplanements						
TOTAL OPERATIONS	6.9	8.4	9.7	11.2	12.9	
GENERAL AVIATION						
Operation	3.5	5.0	5.8	6.6	7.6	
Enplanements	2.5	3.7	4.4	5.4	6.5	
AIR CARRIER						Paving: Extend 12/30 Land: Clear Zone, general development Other: Obstruction removal, fencing, marking, entrance road
Operations						
Enplanments						
TOTAL OPERATIONS	3.5	5.0	5.8	6.6	7.6	
GENERAL AVIATION						
Operations	.6	.8	.9	1.1	1.2	
Enplanements	.4	.6	.7	.9	1.0	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.6	.8	.9	1.1	1.2	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Denton Airport Name: Denton Municipal County: Fergus				07/25 16/34	2640 x 300 2610 x 300	Turf Turf	
Site No.	12323						
Elevation	3850						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Dillon Airport Name: Dillon County: Beaverhead				03/21 07/25 16/34	3800 x 50 2800 x 50 4000 x 75	Turf Turf Asph	VORTAC NDB VOR
Site No.	12324						
Elevation	5238						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					
City: Drummond Airport Name: Drummond County: Granite				9/27	2400 x 100	Turf	VOR
Site No.	12333						
Elevation	4245						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

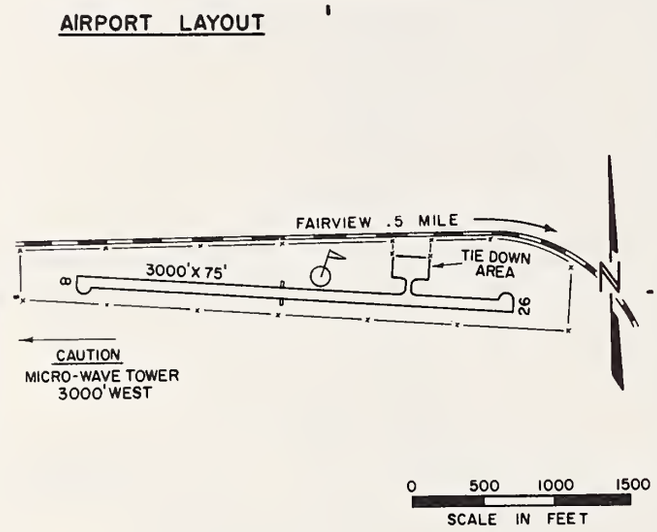
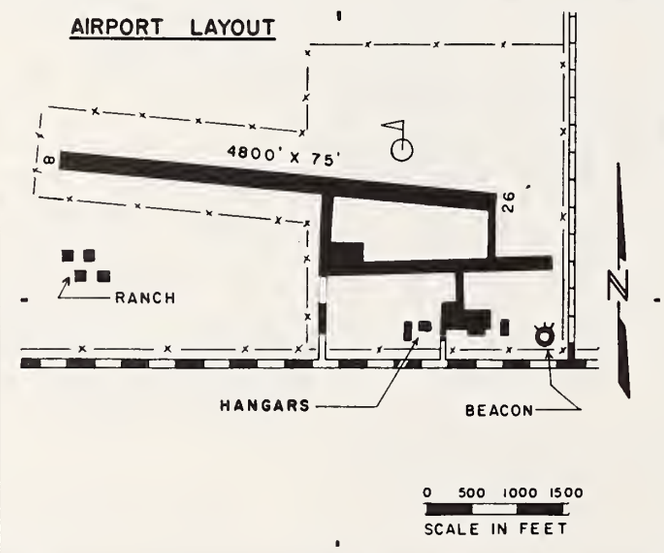
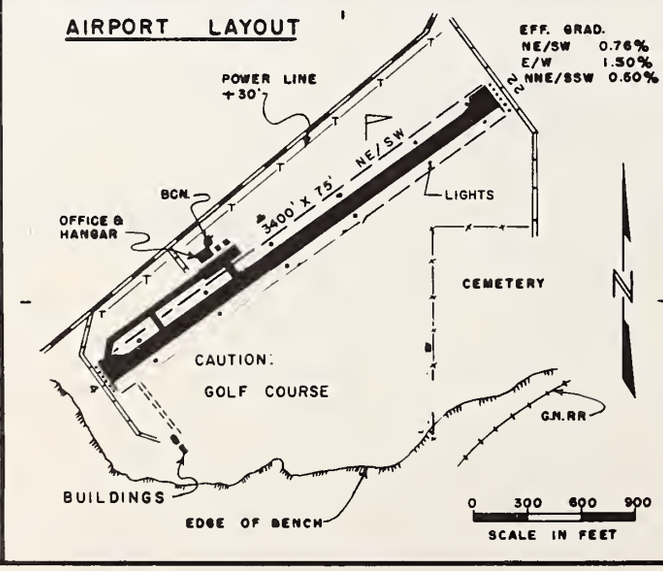
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.3	.5	.6	.7	.8	
Enplanements	.3	.4	.5	.6	.8	
						No recommended development
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	.3	.5	.6	.7	.8	
GENERAL AVIATION						
Operation	5.5	7.0	8.1	9.3	10.7	
Enplanements	3.9	5.1	6.2	7.6	9.1	
						Paving: Extend 16/34, pave 3/21, taxiway, extend apron, drainage Land: Clear Zone, 16 & 21, general development Lighting: MIRL 16/34, 3/21 Approach Aids: VASI-2, 3, 21, 34, 16 Other: Fencing, access road
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	5.5	7.0	8.1	9.3	10.7	
GENERAL AVIATION						
Operations	.5	.7	.8	.9	1.1	
Enplanements	.4	.6	.7	.9	1.0	
						No recommended development
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	.5	.7	.8	.9	1.1	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Dutton Airport Name: Dutton County: Teton				16/34	2780 x 105	Turf	
Site No.	12337						
Elevation	3695						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: East Poplar Airport Name: East Poplar County: Daniels				07/25	3300 x 75	Turf	
Site No.	12495.1						
Elevation	2475						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Ekalaka Airport Name: Ekalaka County: Carter				12/30	3400 x 75	Turf	
Site No.	12340						
Elevation	3485						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

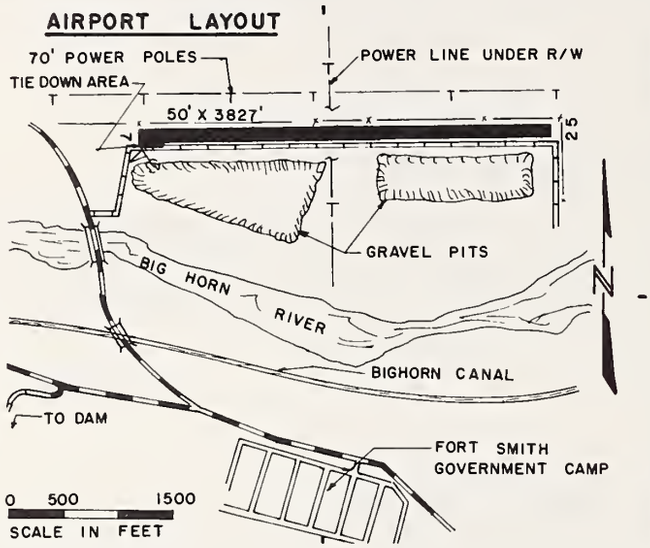
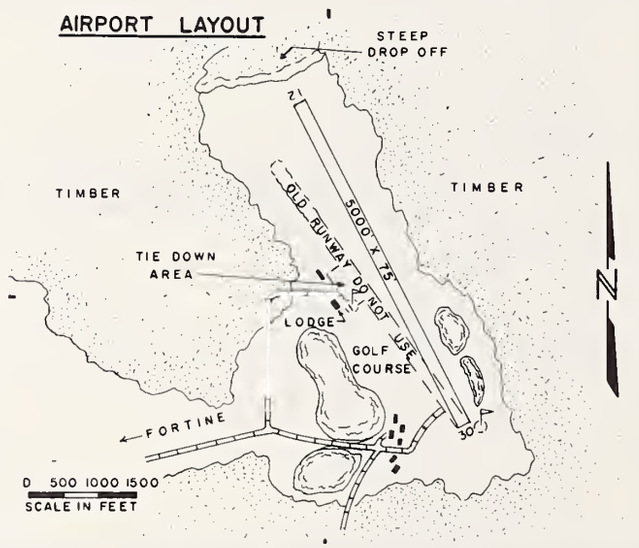
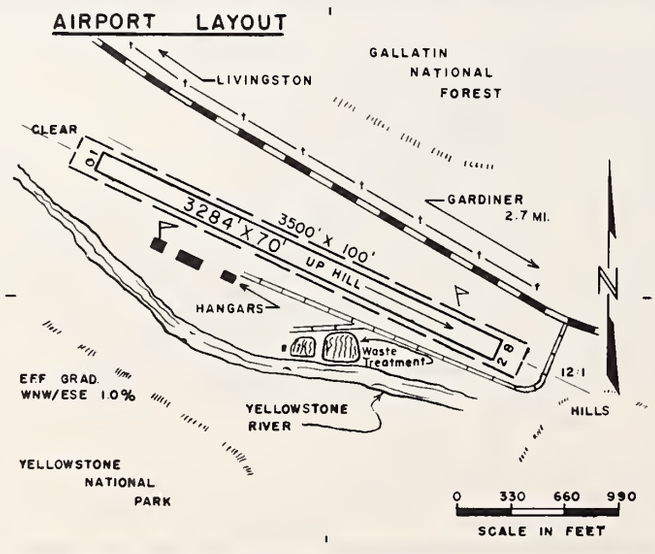
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	1.0	1.3	1.5	1.7	2.0	
Enplanements	.8	1.0	1.3	1.5	1.8	
						Extend runway to BU standards
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	1.0	1.3	1.5	1.7	2.0	
GENERAL AVIATION						
Operation	1.0	1.0	1.2	1.5	2.0	
Enplanements	1.4	1.5	1.8	2.4	3.4	
						No recommended development
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	1.0	1.0	1.2	1.5	2.0	
GENERAL AVIATION						
Operations	.8	1.5	1.7	2.0	2.3	
Enplanements	.6	1.1	1.3	1.6	2.0	
AIR CARRIER						Construct new airport
Operations						
Enplanements						
TOTAL OPERATIONS	.8	1.5	1.7	2.0	2.3	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Ennis Airport Name: Sportsman Field County: Madison				18/36	3667 x 75	Grvl	
Site No.	12342						
Elevation	4985						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Eureka Airport Name: Eureka County: Lincoln				14/32	4200 x 50	Asph	NDB
Site No.	12344						
Elevation	2680						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Fairfield Airport Name: Fairfield County: Teton				02/20 07/25	3600 x 300 1000 x 300	Turf Turf	
Site No.	12344.5						
Elevation	3990						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

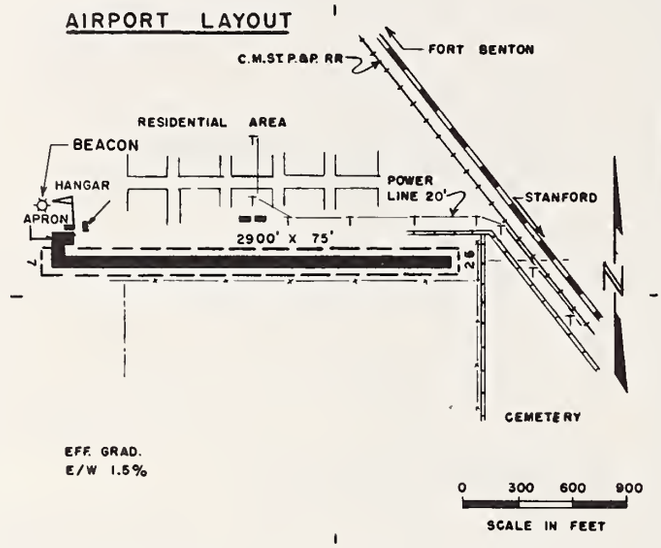
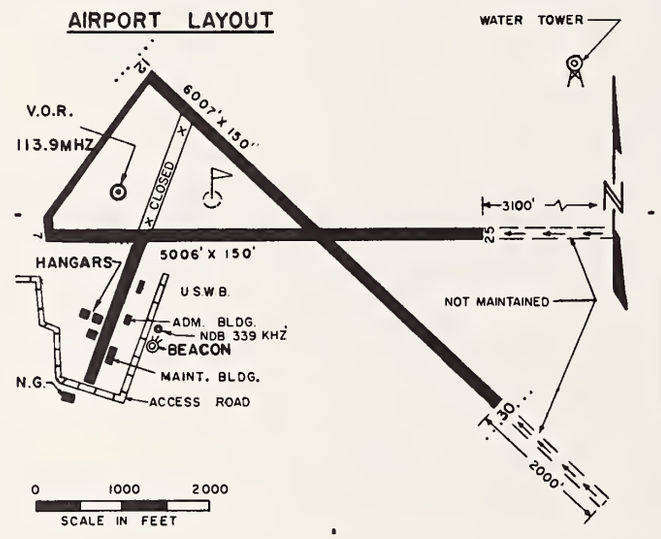
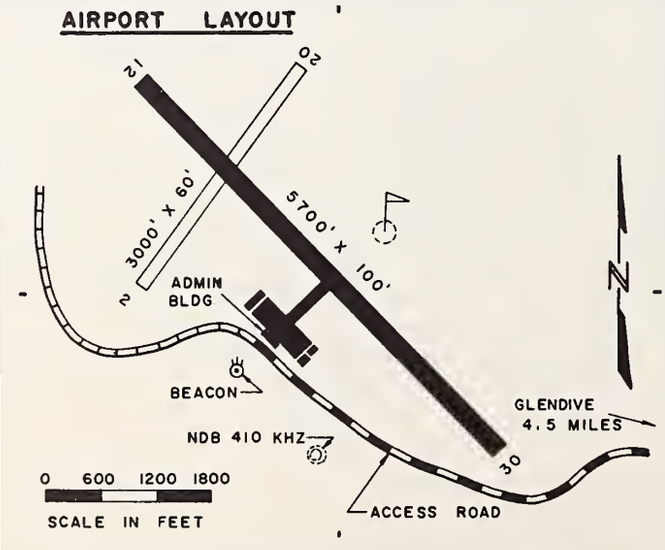
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	.3	.4	.5	.6	.8	
Enplanements	.2	.3	.4	.5	.8	
AIR CARRIER						Acquire private airport and develop as county airport
Operations						
Enplanements						
TOTAL OPERATIONS	.3	.4	.5	.6	.8	
GENERAL AVIATION						
Operation	14.3	19.0	21.9	25.1	28.9	
Enplanements	9.1	13.2	15.9	19.2	23.2	
AIR CARRIER						Paving: Extend & widen 14/32, taxiway, apron, resurface 14/32 Land: Clear Zone, 14, general development Lighting: MIRL 14/32 Approach Aids: VASI-2, 14/32 Other: Fencing
Operations						
Enplanments						
TOTAL OPERATIONS	14.3	19.0	21.9	25.1	28.9	
GENERAL AVIATION						
Operations	.4	.6	.7	.8	.9	
Enplanements	.3	.4	.5	.6	.8	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.4	.6	.7	.8	.9	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Fairview Airport Name: Fairview County: Richland				08/26	3000 x 75	Turf	
Site No.	12346						
Elevation	2152						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Forsyth Airport Name: Tillitt Field County: Rosebud				08/26	4800 x 75	Asph	V2-L NDB
Site No.	12357						
Elevation	2728						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					
City: Fort Benton Airport Name: Fort Benton County: Chouteau				04/22	3400 x 75	Asph	
Site No.	12360						
Elevation	2886						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

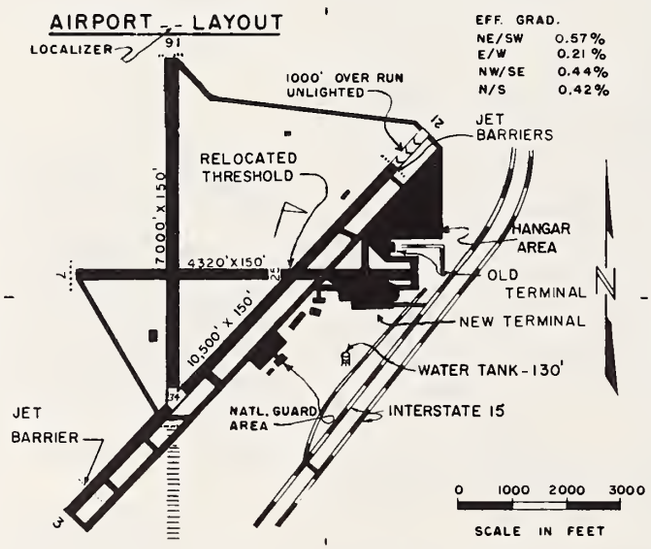
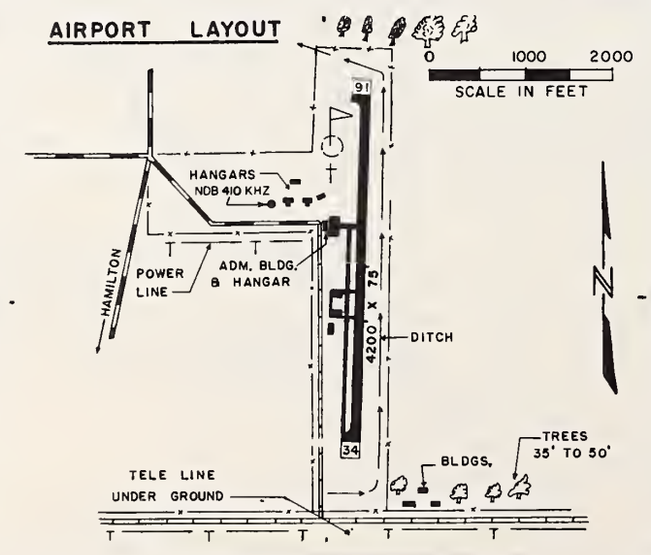
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.2	.3	.4	.5	.6	
Enplanements	.1	.2	.3	.4	.5	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.3	.4	.5	.6	
GENERAL AVIATION						
Operation	6.8	7.4	8.2	9.7	11.5	
Enplanements	10.1	16.3	19.8	24.0	29.0	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	6.8	7.4	8.2	9.7	11.5	
GENERAL AVIATION						
Operations	5.0	6.0	7.0	8.0	10.0	
Enplanements	3.5	4.6	5.5	6.6	8.0	
AIR CARRIER						Paving: Extend and resurface 4/22, taxiway and apron Land: Clear Zone, general development Lighting: MIRL - 4/22 Approach Aids: VASI-2, 4/22 Other: Fencing, relocate road
Operations						
Enplanements						
TOTAL OPERATIONS	5.0	6.0	7.0	8.0	10.0	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Fort Smith Airport Name: Fort Smith County: Big Horn				07/25	3827 x 50	Asph	
Site No.	12363.2						
Elevation	3240						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Fortine Airport Name: Vredenburg County: Lincoln				12/30	5000 x 75	Asph	
Site No.	12361						
Elevation	3141						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Gardiner Airport Name: Gardiner County: Park				10/28	3500 x 100	Grvl	
Site No.	12368						
Elevation	5286						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

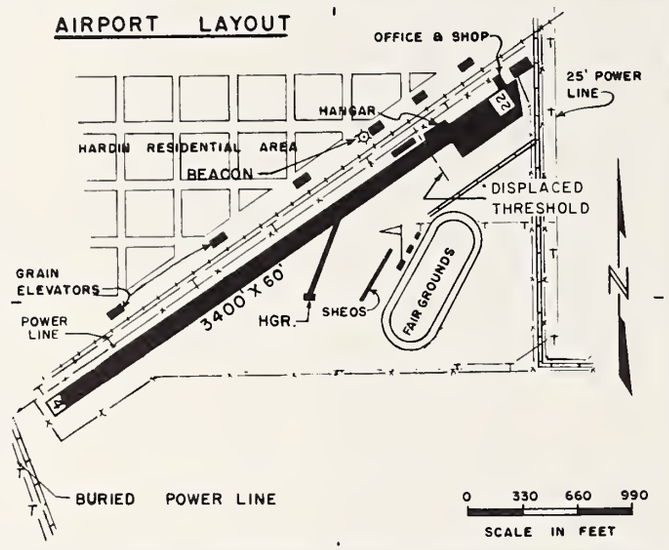
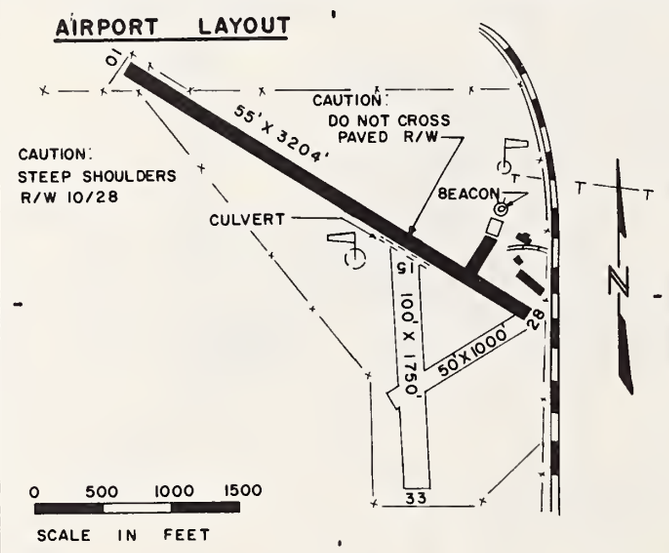
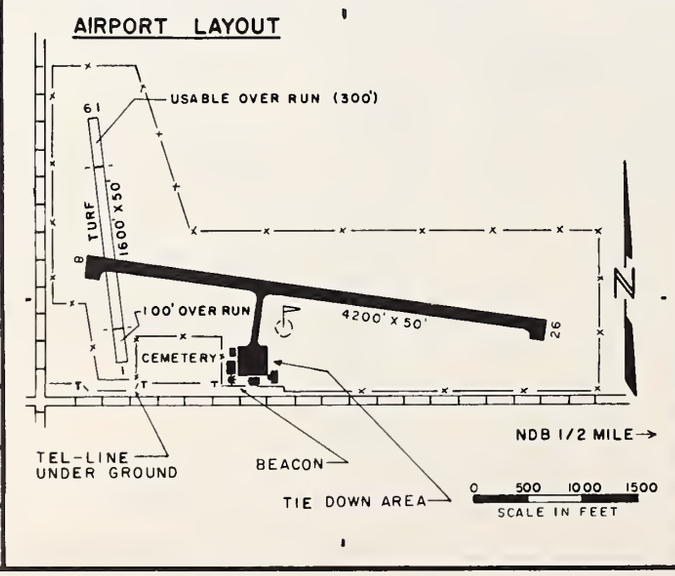
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.2	.4	.5	.6	.7	
Enplanements	.3	.6	.8	1.0	1.2	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.4	.5	.6	.7	
GENERAL AVIATION						
Operation	.3	.4	.5	.6	.7	
Enplanements	.3	.4	.5	.6	.7	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.3	.4	.5	.6	.7	
GENERAL AVIATION						
Operations	1.2	4.2	4.8	5.6	6.4	
Enplanements	1.1	3.2	5.6	6.8	5.7	
AIR CARRIER						Reconstruct runway
Operations						
Enplanements						
TOTAL OPERATIONS	1.2	4.2	4.8	5.6	6.4	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Geraldine Airport Name: Geraldine County: Chouteau				7/25	2900 x 75	Asph	
Site No.	12370						
Elevation	3180						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Glasgow Airport Name: Glasgow International County: Valley				07/25	5006 x 150	Asph	NDB
Site No.	12375						
Elevation	2293			12/30	6007 x 150	Asph	VOR
Role	77	82					
System	F-3	F-2					
Operational	C5	C5					
City: Glendive Airport Name: Dawson County County: Dawson				02/20	3000 x 60	Turf	
Site No.	12378.1						
Elevation	2457			12/30	5700 x 100	Asph	
Role	77	82					
System	F-3	F-2					NDB
Operational	C5	C5					

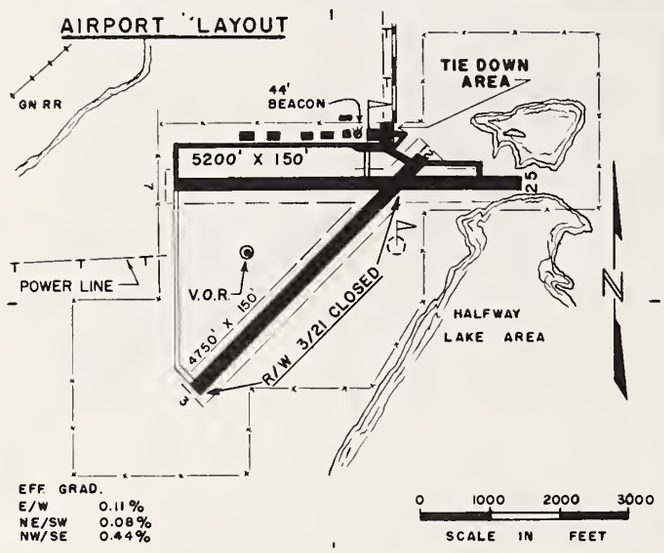
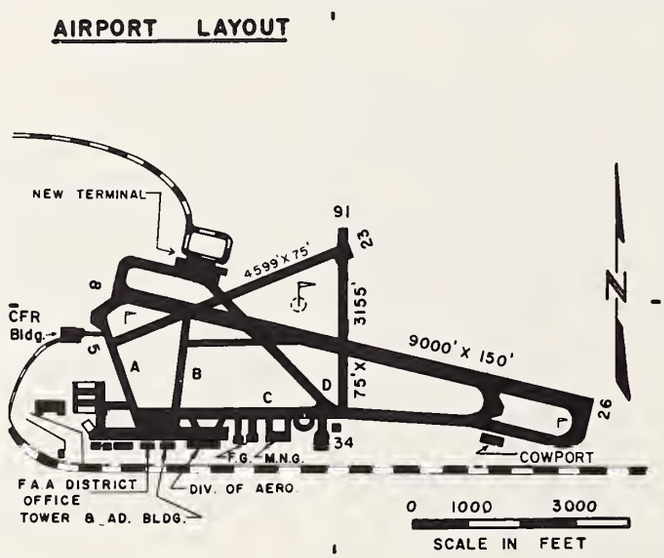
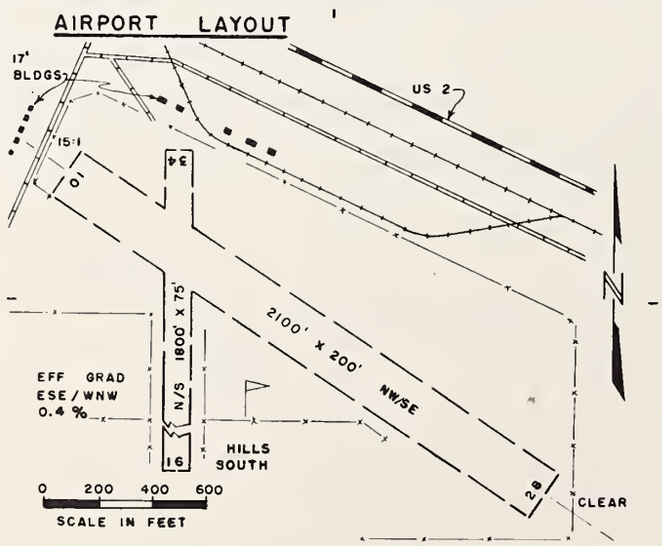
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	2.0	3.9	4.5	5.2	5.9	
Enplanements	1.4	2.7	3.2	3.9	4.7	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	2.0	3.9	4.5	5.2	5.9	
GENERAL AVIATION						
Operation	28.2	33.4	39.7	47.0	54.3	
Enplanements	13.0	17.5	23.9	31.7	34.8	
AIR CARRIER						Paving: Reconstruct 12/30, 7/25; resurface taxiway, apron; construct additional paved parking (G.A.); expand auto parking Lighting: MIRL, 12/30, 7/25, taxiway Buildings: Expand terminal building Approach Aids: VASI-2, 12/30, 7/25 REILS 12/30, 7/25 Other: Fencing
Operations	2.9	2.9	2.9	3.2	3.5	
Enplanments	3.3	4.3	4.3	4.3	4.3	
TOTAL OPERATIONS	31.1	36.3	42.6	50.2	57.8	
GENERAL AVIATION						
Operations	15.4	20.6	23.7	27.2	31.3	
Enplanements	10.8	14.8	17.9	21.8	26.3	
AIR CARRIER						Paving: Resurface 12/30, taxiway, apron; construct additional parking apron (G.A.) Approach Aids: VASI-2, 12/30
Operations	1.2	1.2	1.2	1.2	1.2	
Enplanements	.9	.9	.9	.9	.9	
TOTAL OPERATIONS	16.6	21.8	24.9	28.4	32.5	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Grass Range Airport Name: Clark County: Fergus				07/25	2600 x 80	Turf	
Site No.	12380.51						
Elevation							
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Great Falls Airport Name: Gt. Falls International County: Cascade				03/21	10,500 x 150	Asph	MALSR V-4L
				07/25	4320 x 150	Asph	
Site No.	12381						
Elevation	3674						
Role	77	82		16/34	7000 x 150	Asph	ALSFL VORTAC NDB VOR
System	S-2	S-2					
Operational	B3	B2					
City: Hamilton Airport Name: Ravalli County County: Ravalli				16/34	4200 x 75	Asph	NDB
Site No.	12384						
Elevation	3638						
Role	77	82					
System	F-3	F-2					
Operational	BU	GU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	.2	.2	.2	.3	.3	
Enplanements	.1	.2	.2	.2	.3	
AIR CARRIER						Construct new public-use airport
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.2	.2	.3	.3	
GENERAL AVIATION						
Operation	133	170	208	241	273	
Enplanements	98.7	135	177	221	269	
AIR CARRIER						Paving: Resurface 7/25; resurface apron, taxiway Land: General development Lighting: MIRL, 7/25, HIRL, 16/34 Approach Aids: VASI-2, 7/25; VASI-4, 16/24; REIL, 25; MALS, 3 Other: Fencing; marking; two foam trucks
Operations	12.4	13.9	14.5	16.0	17.5	
Enplanments	140	163	189	219	254	
TOTAL OPERATIONS	145	184	222	257	291	
GENERAL AVIATION						
Operations	20.2	26.6	30.4	33.0	35.6	
Enplanements	18.7	28.5	35.3	40.8	46.4	
AIR CARRIER						Paving: Extend, overlay 16/34, apron, taxiway Land: CZ, 34, general development Lighting: MIRL 16/34 Approach Aids: VASI-2, 16/34 Other: Relocate road; fencing
Operations						
Enplanements						
TOTAL OPERATIONS	20.2	26.6	30.4	33.0	35.6	

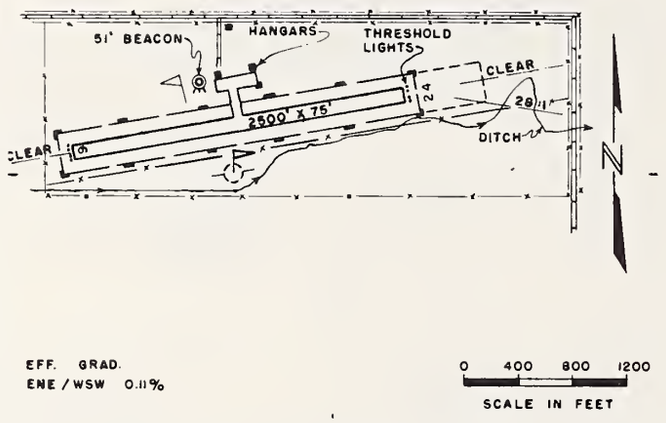
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Hardin Airport Name: Fairgrounds Airpark County: Big Horn				04/22	3400 x 60	Asph	
Site No.	12385						
Elevation	2911						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Harlem Airport Name: Harlem County: Blaine				10/28	3204 x 55	Asph	
Site No.	12390						
Elevation	2560						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Harlowton Airport Name: Wheatland County County: Wheatland				08/26 16/34	4200 x 50 1600 x 50	Asph Turf	V-2L NDB
Site No.	12393						
Elevation	4317						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

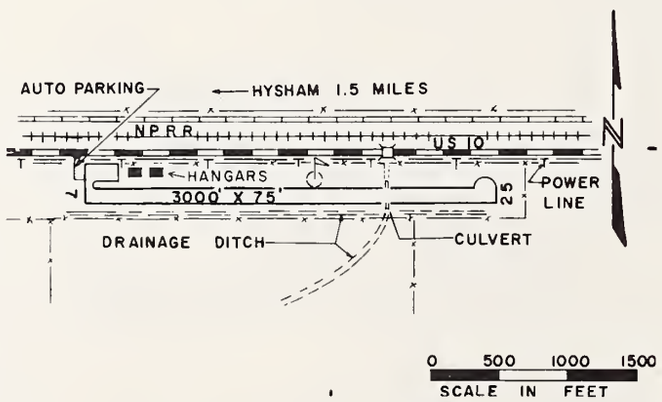
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	7.4	8.6	9.9	11.4	13.1	
Enplanements	5.2	6.0	7.3	8.9	10.7	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	7.4	8.6	9.9	11.4	13.1	
GENERAL AVIATION						
Operation	4.5	5.7	6.6	7.5	8.7	
Enplanements	2.8	4.0	4.8	5.8	7.0	
AIR CARRIER						Paving: Widen 10/28, extend and resurface 10/28, new apron, taxiway Land: Clear Zone, 10/28, general development Lighting: MIRL, 10/28 Other: Relocate road, fencing, marking
Operations						
Enplanments						
TOTAL OPERATIONS	4.5	5.7	6.6	7.5	8.7	
GENERAL AVIATION						
Operations	1.3	2.1	2.4	2.8	3.2	
Enplanements	1.1	1.6	1.9	2.4	2.8	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	1.3	2.1	2.4	2.8	3.2	

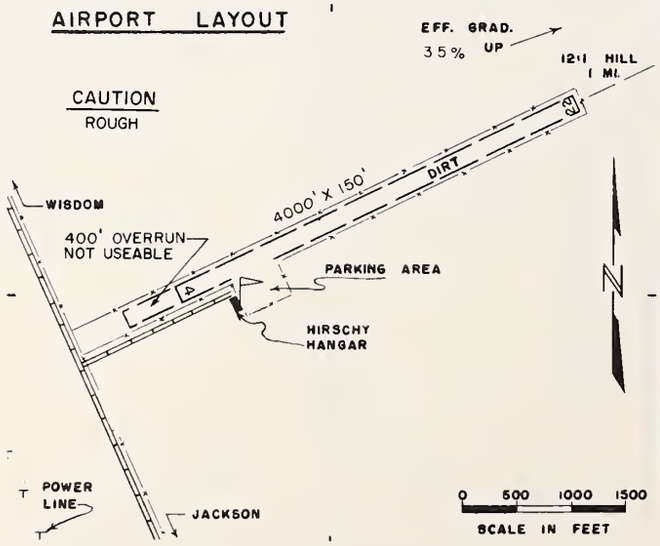
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Havre Airport Name: Havre City-County County: Hill				07/25	5200 x 150	Asph	NDB VOR
Site No.	12399						
Elevation	2584						
Role	77	82					
System	F-3	F-3					
Operational	C5	C5					
City: Helena Airport Name: Helena County: Lewis & Clark				05/23	4599 x 75	Asph	
				08/26	9000 x 150	Asph	MALSR V-4-L
				16/34	3155 x 75	Asph	
Site No.	12402						
Elevation	3873						
Role	77	82					
System	S3	S3					VORTAC NDB VOR
Operational	B3	B3					
City: Hinsdale Airport Name: Hinsdale County: Valley				10/28	2100 x 200	Turf	
				16/34	1800 x 75	Turf	
Site No.	12402.6						
Elevation	2180						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	16.4	19.2	21.3	22.9	24.5	
Enplanements	10.4	14.5	18.2	21.1	22.3	
AIR CARRIER						Paving: Resurface 3/21, 7/25; resurface taxiway, apron Lighting: MIRL, 7/25, 3/21, taxiway Approach Aids: VASI-2, 3/21, 7/25; REILS, 3/21, 7/25 Other: Marking
Operations	.6	.6	.6	.6	.6	
Enplanements	.9	.9	.9	.9	.9	
TOTAL OPERATIONS	17.0	19.8	21.9	23.5	25.1	
GENERAL AVIATION						
Operation	57.7	73.6	89.5	103	120	
Enplanements	26.7	31.2	35.0	38.9	43.7	
AIR CARRIER						Paving: Extend 16/34; construct additional parking apron (G.A.) Lighting: Extend 16/34, new 5/23 Other: Fencing, marking
Operations	5.1	6.2	7.3	7.3	23	
Enplanments	49.8	67.1	90.3	126	170	
TOTAL OPERATIONS	62.8	79.8	96.8	111	127	
GENERAL AVIATION						
Operations	.4	.6	.7	.8	.9	
Enplanements	.3	.4	.5	.6	.8	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.4	.6	.7	.8	.9	

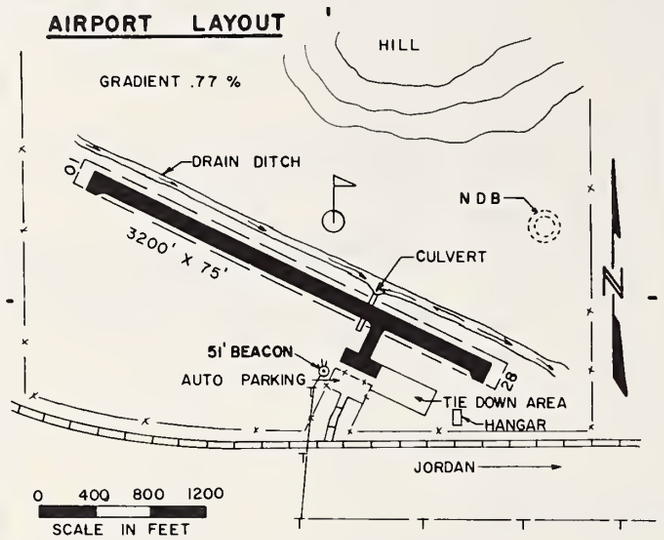
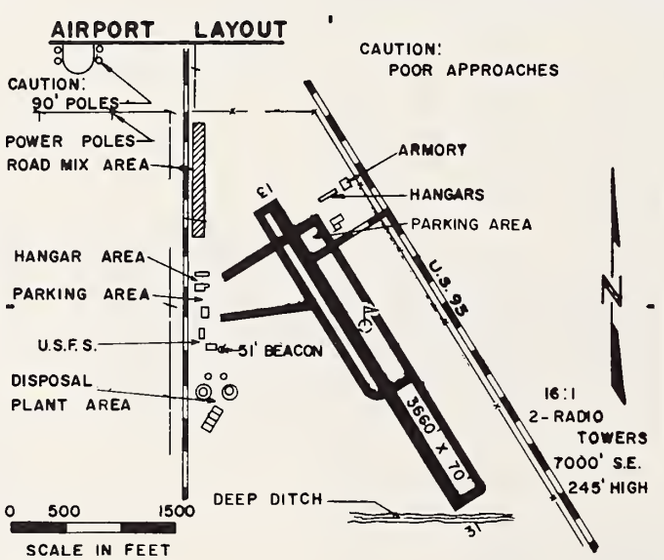
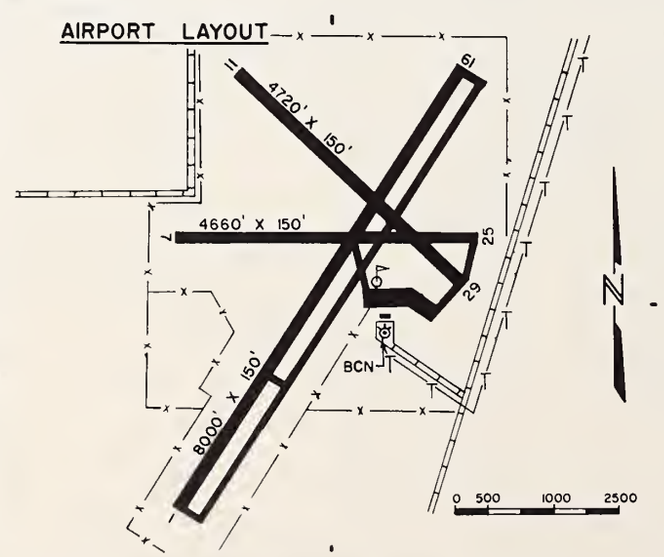
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Hot Springs Airport Name: Hot Springs County: Sanders			AIRPORT LAYOUT	06/24	2500 x 75	Grvl	
Site No.	12403.5						
Elevation	2763						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Hysham Airport Name: Hysham County: Treasure			AIRPORT LAYOUT	07/25	3000 x 75	Grvl	
Site No.	12404.4						
Elevation	2624						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Jackson Airport Name: Hirschy County: Beaverhead			AIRPORT LAYOUT	04/22	4000 x 75	Turf	
Site No.	12407.5						
Elevation	6400						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					



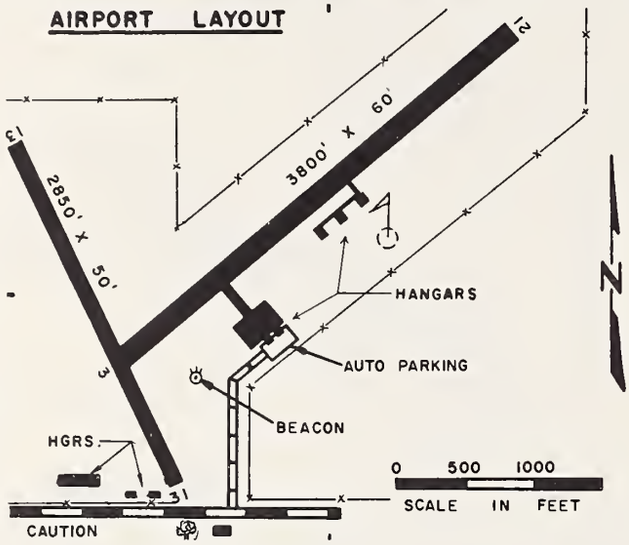
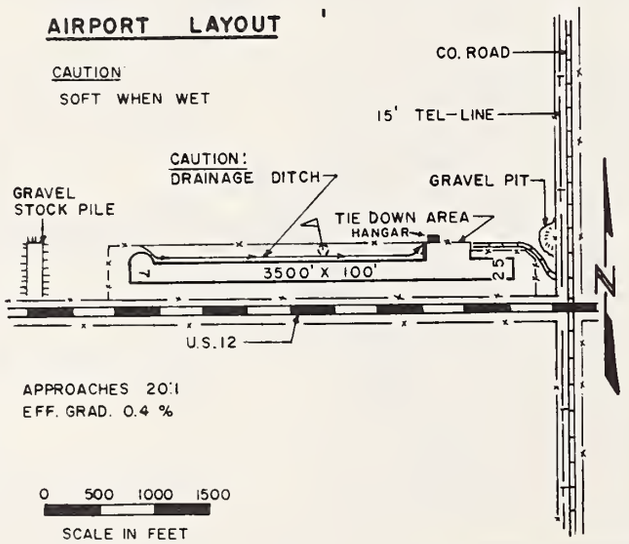
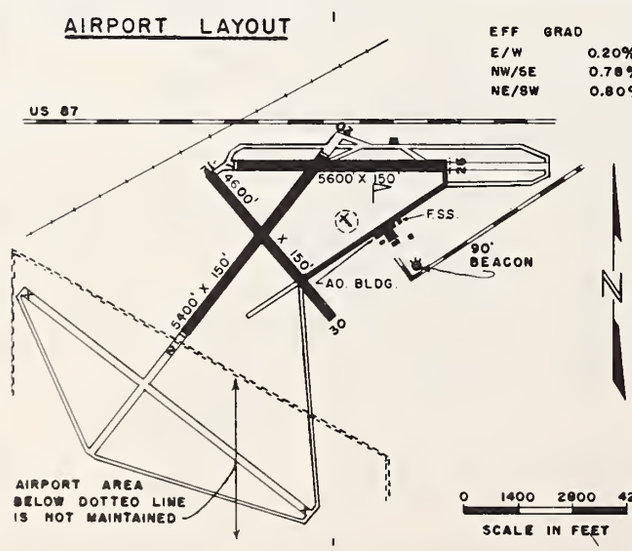




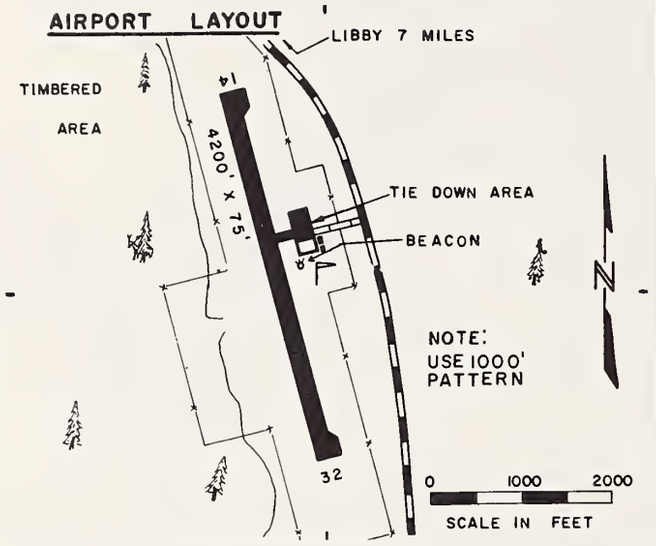
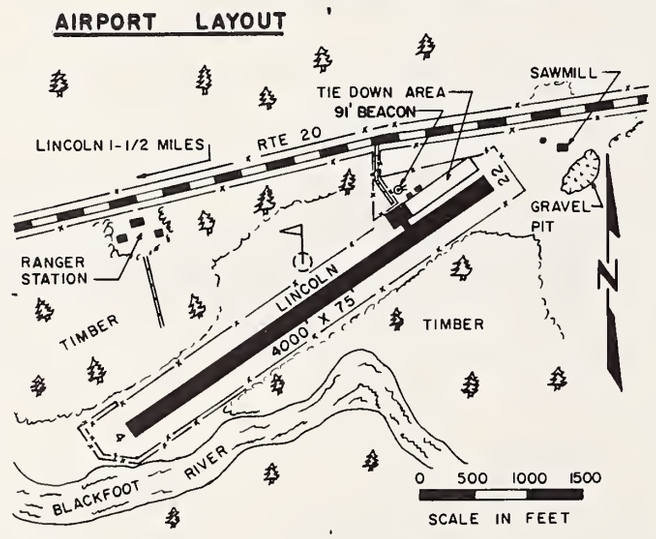
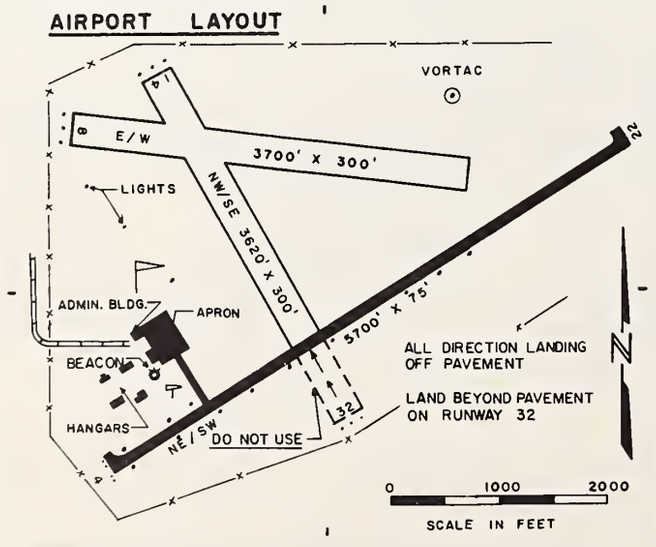
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.8	1.1	1.3	1.5	1.7	
Enplanements	.6	.8	1.0	1.2	1.4	
AIR CARRIER						Extend turf rwy to BU standards
Operations						
Enplanements						
TOTAL OPERATIONS	.8	1.1	1.3	1.5	1.7	
GENERAL AVIATION						
Operation	.4	.6	.7	.8	.9	
Enplanements	.3	.4	.5	.6	.8	
AIR CARRIER						Paving: Pave 7/25, taxiway, apron Land: Extend 7/25, Clear Zone 25
Operations						
Enplanments						
TOTAL OPERATIONS	.4	.6	.7	.8	.9	
GENERAL AVIATION						
Operations	.1	.2	.3	.4	.5	
Enplanements	.1	.3	.5	.6	.9	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.2	.3	.4	.5	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Jordan Airport Name: Jordan County: Garfield				10/28	3200 x 75	Asph	NDB
Site No.	12408						
Elevation	2656						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Kalispell Airport Name: Kalispell City County: Flathead				13/31	3660 x 70	Asph	
Site No.	12417						
Elevation	2935						
Role	77	82					
System	F-3	F-2					
Operational	BU	BU					
City: Kalispell Airport Name: Glacier International County: Flathead				01/19 07/25 11/29	8000 x 150 4660 x 150 4720 x 150	Asph Asph Asph	ILS MALSR VOR
Site No.	12418						
Elevation	2972						
Role	77	82					
System	S3	S3					
Operational	B3	B3					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.6	1.1	1.3	1.5	1.7	
Enplanements	.3	.6	.7	.8	1.0	
AIR CARRIER						Paving: Resurface 10/28
Operations						
Enplanements						
TOTAL OPERATIONS	.6	1.1	1.3	1.5	1.7	
GENERAL AVIATION						
Operation	29.0	33.0	38.0	44.0	50.0	
Enplanements	20.3	24.3	29.3	35.8	42.8	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	29.0	33.0	38.0	44.0	50.0	
GENERAL AVIATION						
Operations	50.9	63.7	87.4	110	134	
Enplanements	31.8	51.3	75.8	96.7	115	
AIR CARRIER						Paving: Resurface 1/19; construct additional parking apron, G.A. and air carrier
Operations	3.7	4.7	5.5	6.2	7.1	Land: General development
Enplanements	35.2	56	80	102	126	Buildings: Construct new terminal building
TOTAL OPERATIONS	54.6	68.4	92.9	117	123	Approach Aids: VASI-4, 1/19; REIL, 1/19

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Laurel Airport Name: Laurel Municipal County: Yellowstone				03/21 13/31	3800 x 60 2850 x 50	Asph Asph	
Site No.	12422						
Elevation	3515						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					
City: Lavina Airport Name: Lavina County: Golden Valley				07/25	3500 x 100	Turf	
Site No.	12423.1						
Elevation	3490						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Lewistown Airport Name: Lewistown Municipal County: Fergus				02/20 07/25 12/30	5400 x 150 5600 x 150 4600 x 150	Asph Asph Asph	VORTAC NDB VOR
Site No.	12426						
Elevation	4165						
Role	77	82					
System	F-3	F-3					
Operational	C5	C5					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	6.5	8.5	9.8	11.3	13.0	
Enplanements	4.6	6.2	7.5	8.7	11.1	
AIR CARRIER						Paving: Extend & resurface 3/21, 13/31, taxiway, apron Land: Clear Zone 13/21, general development Lighting: MIRL, 3/21, 13/31 Approach Aids: VASI-2, 3 & 31 Other: Fencing, marking
Operations						
Enplanements						
TOTAL OPERATIONS	6.5	8.5	9.8	11.3	13.0	
GENERAL AVIATION						
Operation	.1	.2	.3	.4	.5	
Enplanements	.1	.3	.5	.6	.9	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.1	.2	.3	.4	.5	
GENERAL AVIATION						
Operations	18.0	20.8	23.9	27.5	31.6	
Enplanements	11.5	13.9	16.8	20.3	24.6	Paving: Resurface 7/25, 2/20, taxiway, apron; construct additional paved apron (G.A.); construct new central taxiway Land: Clear Zone, 7/25 Lighting: MIRL, 2/20 Approach Aids: VASI-2, 2/20; VASI-4, 7/25; REILS, 7/25 Buildings: Maintenance building Other: Fencing
AIR CARRIER						
Operations	1.2	1.2	1.2	1.2	1.2	
Enplanements	.8	.8	.8	.8	.8	
TOTAL OPERATIONS	19.2	22.0	25.1	28.7	32.8	

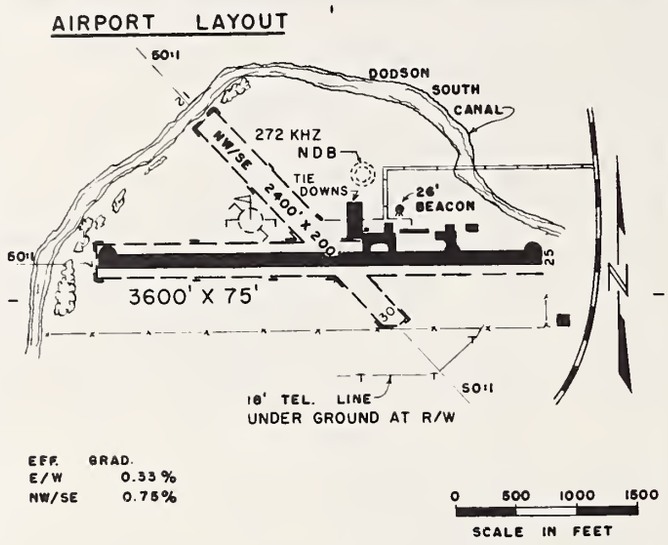
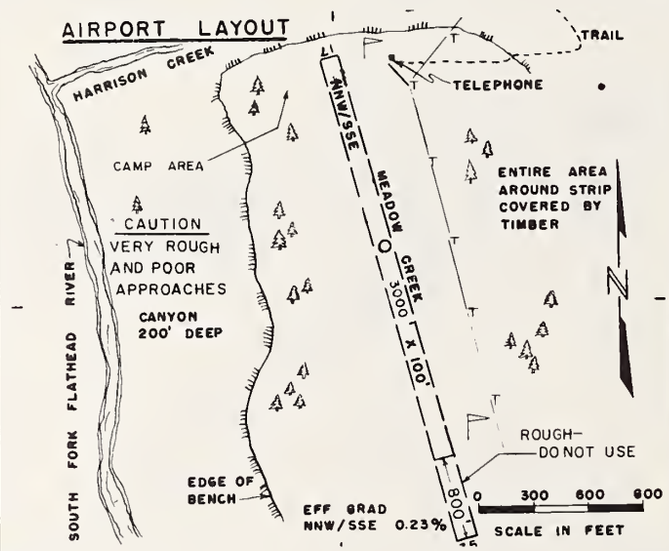
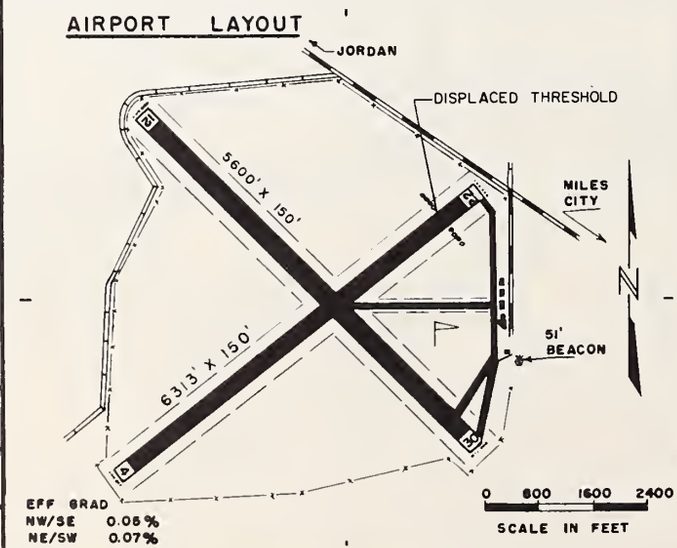
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
			LYI 414 kHz ◦ NDB 1 mile	Runway	Length x Width	Surface	
City: Libby Airport Name: Libby County: Lincoln				14/32	4200 x 75	Asp h	NDB
Site No.	1249.11						
Elevation	2600						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Lincoln Airport Name: Lincoln County: Lewis & Clark				04/22	4000 x 75	Asp h	
Site No.	12430.1						
Elevation	4597						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Livingston Airport Name: Mission Field County: Park				04/22 08/26 14/32	5700 x 75 3700 x 300 3620 x 300	Asp h Turf Turf	NO NDB VOR
Site No.	12433						
Elevation	4656						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	6.6	8.7	10.0	11.5	13.2	
Enplanements	4.6	6.5	7.7	9.3	11.3	
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	6.6	8.7	10.0	11.5	13.2	
GENERAL AVIATION						
Operation	.8	1.3	1.5	1.7	2.0	
Enplanements	.6	1.0	1.2	1.4	1.7	
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	.8	1.3	1.5	1.7	2.0	
GENERAL AVIATION						
Operations	8.0	10.4	12.0	13.8	15.9	
Enplanements	5.6	7.6	9.2	11.2	13.6	
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	8.0	10.4	12.0	13.8	15.9	

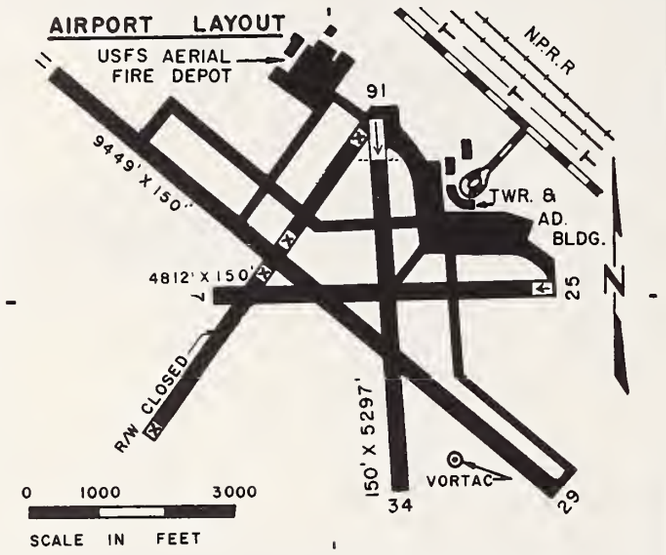
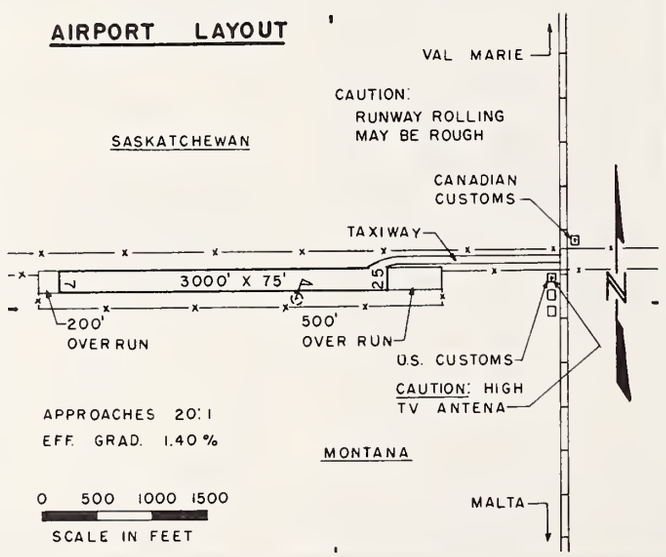
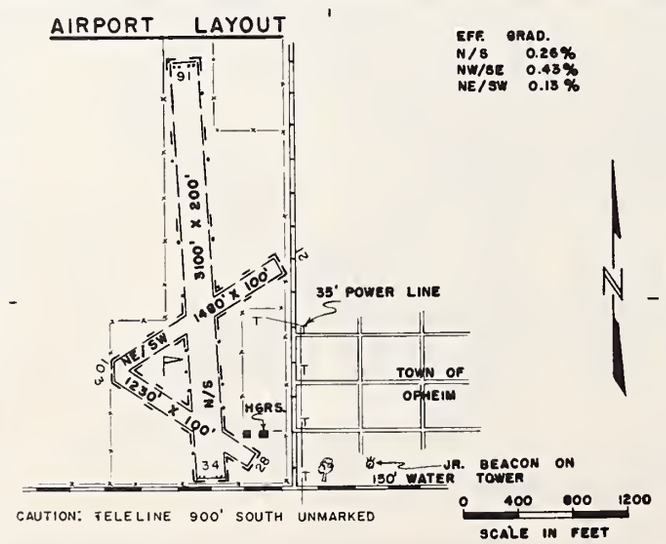
Paving: Extend 14/32 to Basic Transport standards; construct full parallel taxiway
Lighting: Extend MIRL
Approach Aids: VASI-2, 14/32
Other: Fencing, obstruction

Paving: Expand paved parking apron
Lighting: MIRL
Approach Aids: VASI-2, 4/22

Paving: Expand paved parking paron
Land: Clear Zone, 14/32, general development
Lighting: MIRL, 14/32
Other: Fencing, marking

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Malta Airport Name: Malta County: Phillips				07/25 12/30	3600 x 75 2400 x 200	Asph Turf	NDB
Site No.	12438						
Elevation	2280						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Meadow Creek Airport Name: Meadow Creek USFS County: Flathead				17/35	3000 x 100	Turf	
Site No.	12443						
Elevation	3975						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Miles City Airport Name: Miles City County: Custer				04/22 12/30	6313 x 150 5600 x 100	Asph Asph	VORTAC NDB VOR
Site No.	12450						
Elevation	2628						
Role	77	82					
System	F-3	F-3					
Operational	C5	C5					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	14.0	18.0	20.7	23.8	27.4	
Enplanements	9.4	13.2	16.0	19.4	23.4	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	14.0	18.0	20.7	23.8	27.4	
GENERAL AVIATION						
Operation	.2	.2	.2	.3	.3	
Enplanements	.3	.3	.4	.4	.5	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.2	.2	.2	.3	.3	
GENERAL AVIATION						
Operations	27.5	34.6	39.8	45.8	52.6	
Enplanements	18.9	25.1	30.4	36.7	44.5	
AIR CARRIER						Paving: Construct partial parallel taxiway, 4, 12; construct additional paved parking apron (G.A.)
Operations	1.2	1.2	1.2	1.2	1.2	Lighting: MITL, MIRL, 4/22, apron
Enplanements	.7	.9	.9	.9	.9	Buildings: Construct new terminal building
TOTAL OPERATIONS	28.7	35.8	41.0	47.0	53.8	Approach Aids: VASI-2, 4/22

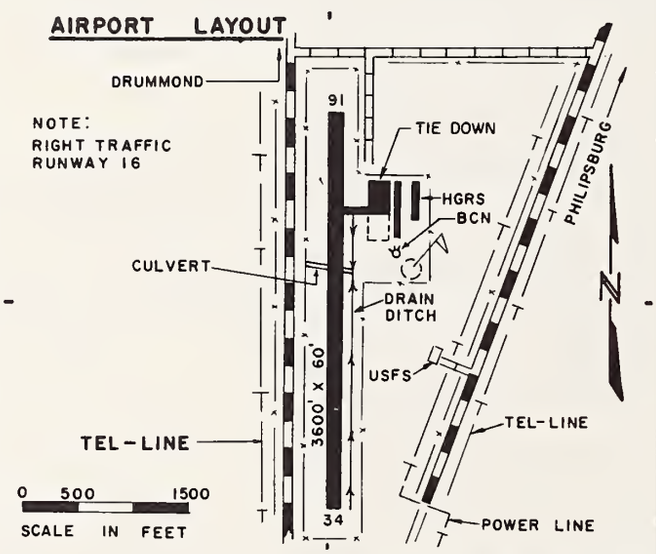
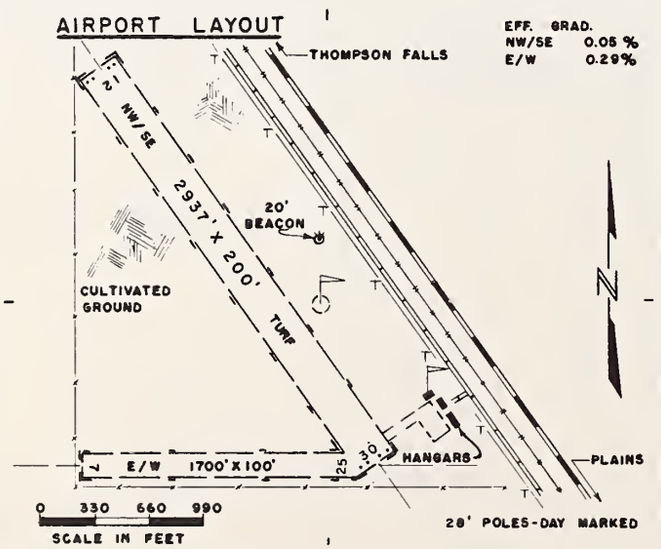
BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Missoula Airport Name: Johnson Bell Field County: Missoula				07/25 11/29 16/34	4812 x 150 9449 x 150 5297 x 150	Asph Asph Asph	MALSR LDIN V4-L VORTAC NDB VOR
Site No.	12453						
Elevation	3201						
Role	77	82					
System	S3	S3					
Operational	B3	B3					
City: Morgan Airport Name: Border Airstrip County: Phillips				7/25	3000 x 75	Turf	
Site No.	12454.21						
Elevation	2813						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Opheim Airport Name: Opheim County: Valley				03/21 10/28 16/34	1480 x 100 1230 x 100 3100 x 200	Turf Turf Turf	
Site No.	12464.2						
Elevation	3264						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	129	158	185	214	286	
Enplanements	95.8	124	155	190	235	
AIR CARRIER						
Operations	6.6	9.2	11.6	14.6	17.6	
Enplanements	89.5	119	149	179	185	
TOTAL OPERATIONS	136	167	196	229	304	
GENERAL AVIATION						
Operation	.3	.5	.6	.7	.8	
Enplanements	.4	.7	.9	1.1	1.3	
AIR CARRIER						
Operations						
Enplanments						
TOTAL OPERATIONS	.3	.5	.6	.7	.8	
GENERAL AVIATION						
Operations	.2	.3	.4	.5	.6	
Enplanements	.1	.2	.3	.4	.5	
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.3	.4	.5	.6	

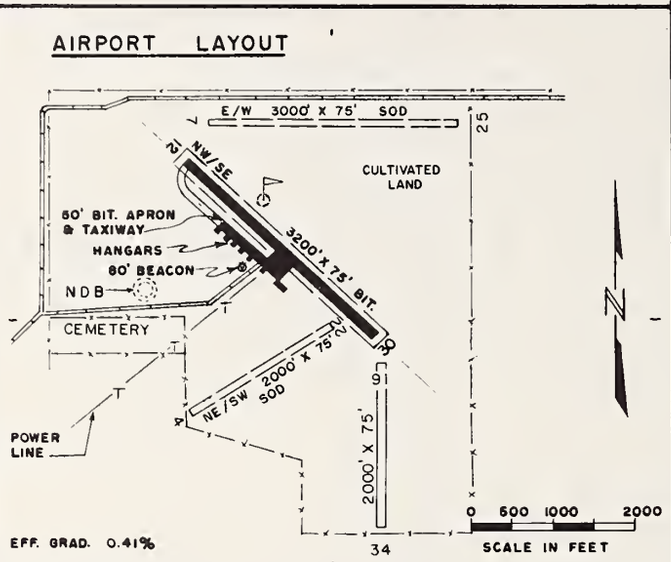
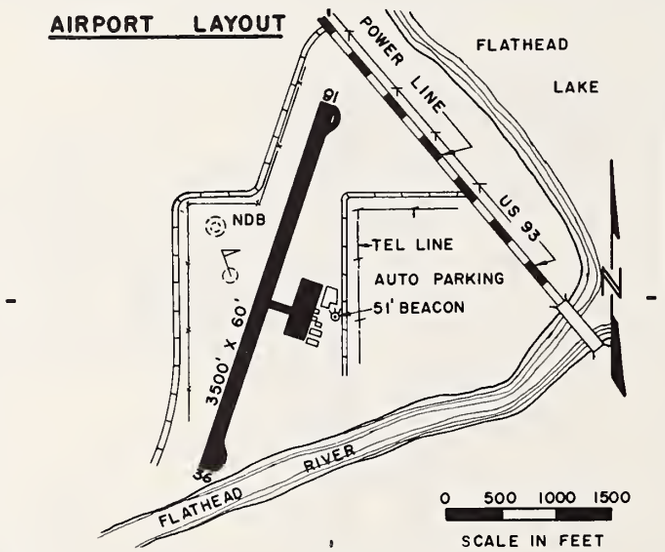
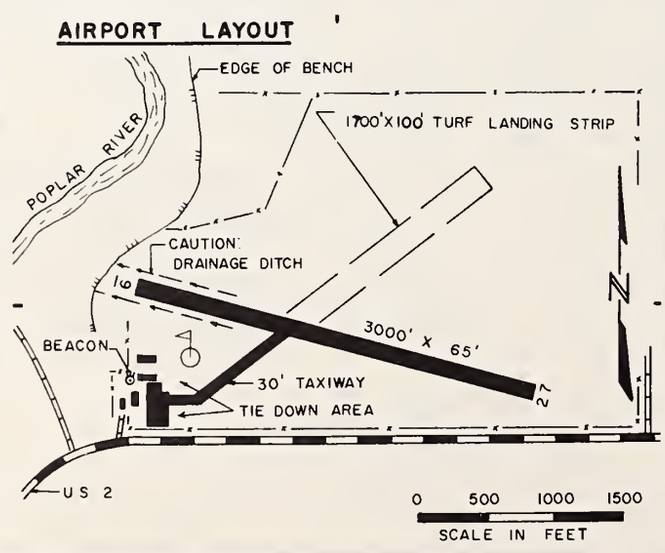
Paving: Construct new taxiway; construct additional paved parking apron (G.A.)
Lighting: MIRL, 7/25
Approach Aids: VASI-2, 7, 25, 11
Other: Obstruction removal; fencing; entrance road

No recommended development

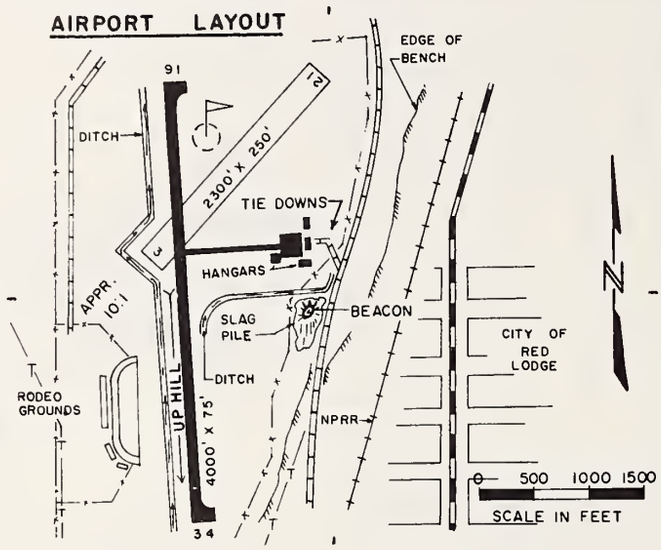
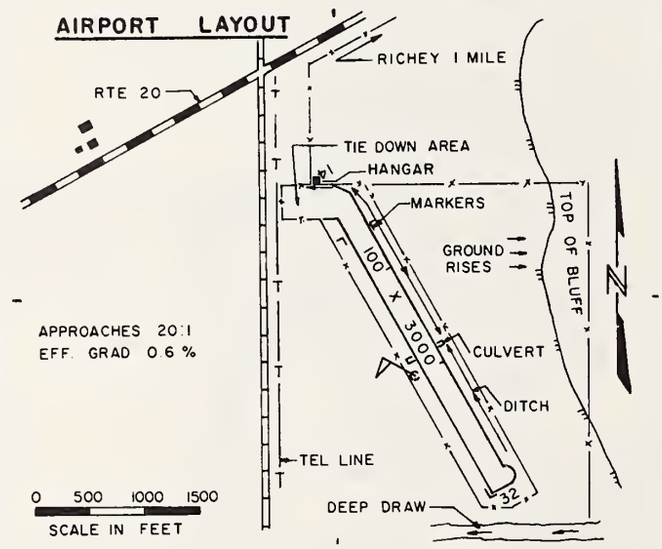
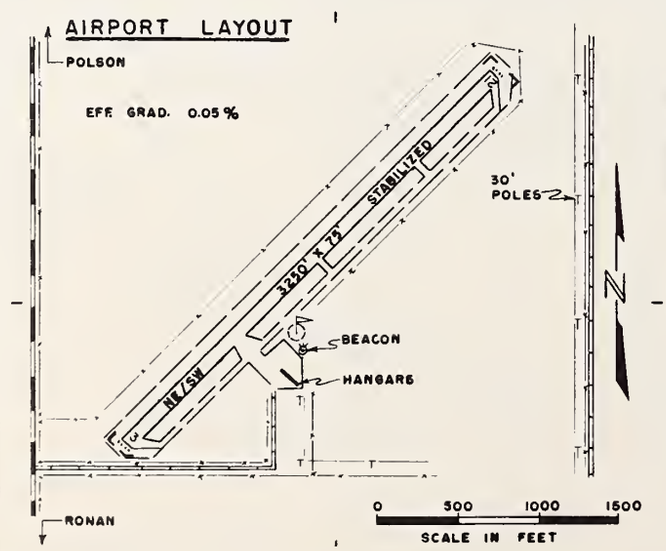
No recommended development

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Peerless Airport Name: Peerless County: Daniels				13/31	2400 x 30	Turf	
Site No.	12466.21						
Elevation	2892						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Philipsburg Airport Name: Ridick Field County: Granite				16/34	3600 x 60	Asph	
Site No.	12467						
Elevation	5212						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Plains Airport Name: Plains County: Sanders				07/25	1700 x 100	Turf	
Site No.	12468						
Elevation	2460			12/30	2937 x 200	Turf	
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

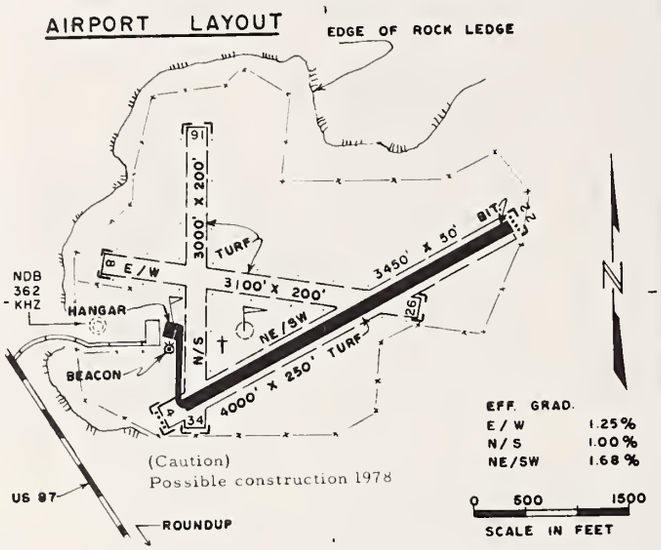
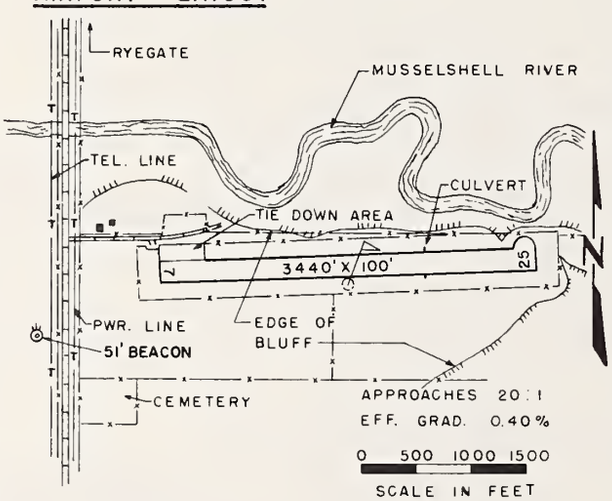
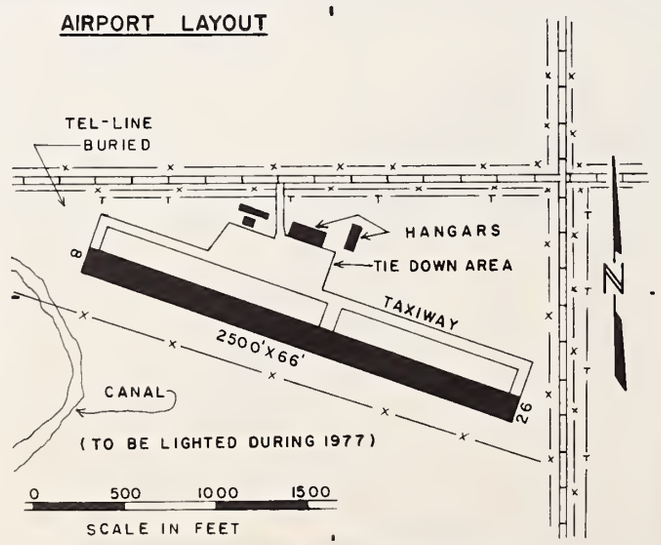
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	.1	.3	.4	.4	.5	
Enplanements	.1	.4	.6	.7	.9	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.3	.4	.5	.6	
GENERAL AVIATION						
Operation	4.6	5.9	6.8	7.8	9.0	
Enplanements	2.9	4.3	5.1	6.2	7.5	
AIR CARRIER						Paving: Extend 16/34, widen taxiway, expand apron Land: General development Lighting: MIRL 16/34 Approach Aid: VASI-2, 16/34 Other: Relocate road, fencing
Operations						
Enplanments						
TOTAL OPERATIONS	4.6	5.9	6.8	7.8	9.0	
GENERAL AVIATION						
Operations	3.4	4.4	5.1	5.8	6.7	
Enplanements	2.4	3.1	3.8	4.5	5.5	
AIR CARRIER						Paving: Extend 12/30 to GU standards Land: Clear Zone 12/30 general development Lighting: MIRL, 12/30 Approach Aids: VASI-2, 12/30 Other: Fencing, marking
Operations						
Enplanements						
TOTAL OPERATIONS	3.4	4.4	5.1	5.8	6.7	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Plentywood Airport Name: Sherwood County: Sheridan				04/22	2000 x 75	Turf	
				07/25	3000 x 75	Turf	
				12/30	3200 x 75	Asph	
				16/34	2000 x 75	Turf	NDB
Site No.	12470						
Elevation	2250						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					
City: Polson Airport Name: Polson County: Lake				18/36	3500 x 60	Asph	
Site No.	12474						NDB
Elevation	2932						
Role	77	82					
System	F-3	F-2					
Operational	BU	BU					
City: Poplar Airport Name: Poplar County: Roosevelt				04/22	1700 x 100	Turf	
				09/27	3000 x 65	Asph	
Site No.	12478						
Elevation	2006						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

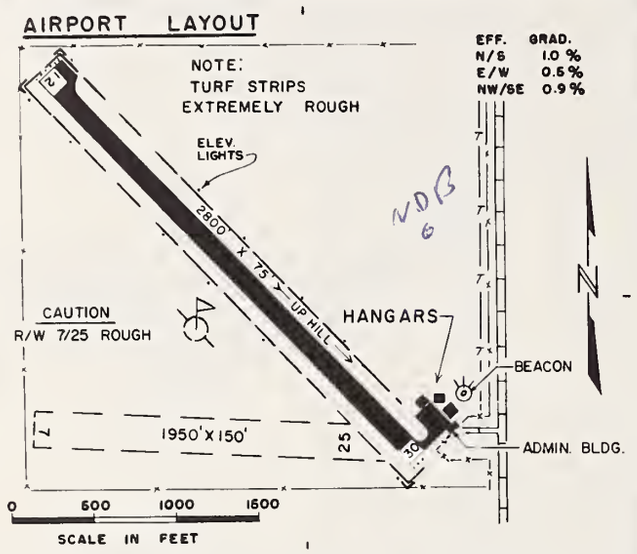
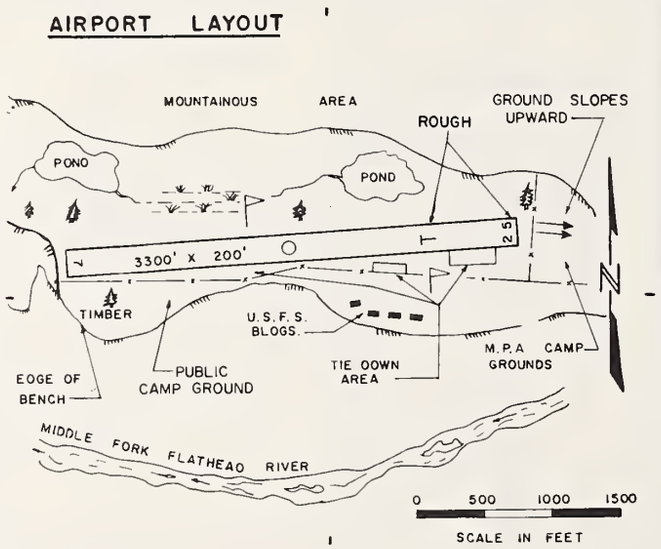
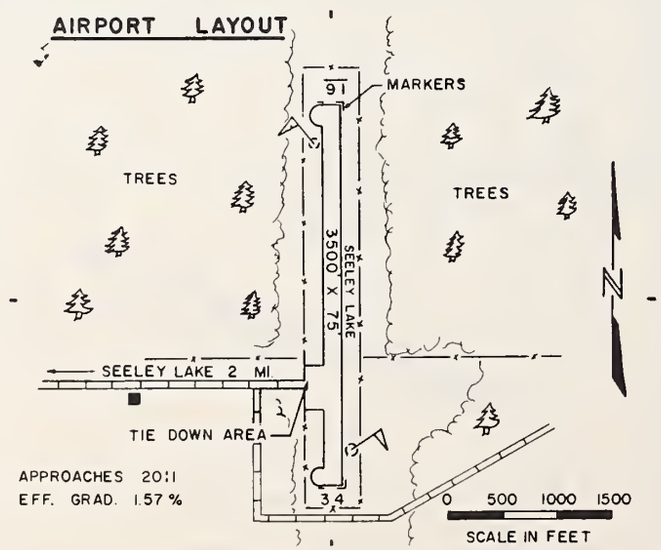
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	13.9	16.7	19.2	22.1	25.4	
Enplanements	9.7	12.2	14.8	18.0	21.7	
AIR CARRIER						Paving: Extend & resurface 12/30, taxiway, apron Lighting: MIRL, 12/30 Approach Aids: VASI-2, 12/30 Other: Marking
Operations						
Enplanements						
TOTAL OPERATIONS	13.9	16.7	19.2	22.1	25.4	
GENERAL AVIATION						
Operation	22.6	28.8	33.1	38.1	43.8	
Enplanements	15.5	21.3	25.6	31.0	37.5	
AIR CARRIER						Paving: Construct & pave full parallel taxiway; expand paved parking apron
Operations						
Enplanments						
TOTAL OPERATIONS	22.6	28.8	33.1	38.1	43.8	
GENERAL AVIATION						
Operations	3.4	4.6	5.3	6.1	7.0	
Enplanements	2.4	3.1	3.8	4.5	5.5	
AIR CARRIER						Acquire land and relocate airport
Operations						
Enplanements						
TOTAL OPERATIONS	3.4	4.6	5.3	6.1	7.0	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Red Lodge Airport Name: Red Lodge County: Carbon				03/21	2300 x 250	Turf	NDB
Site No.	12483			16/34	4000 x 75	Asph	
Elevation	5762						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					
City: Richey Airport Name: Richey County: Dawson				14/32	3000 x 100	Turf	
Site No.	12484.01						
Elevation	2494						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Ronan Airport Name: Ronan County: Lake				03/21	3250 x 75	Turf	
Site No.	12485						
Elevation	3089						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

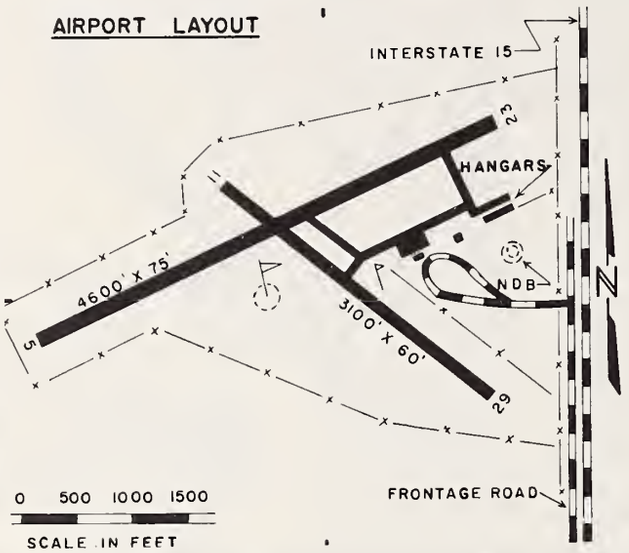
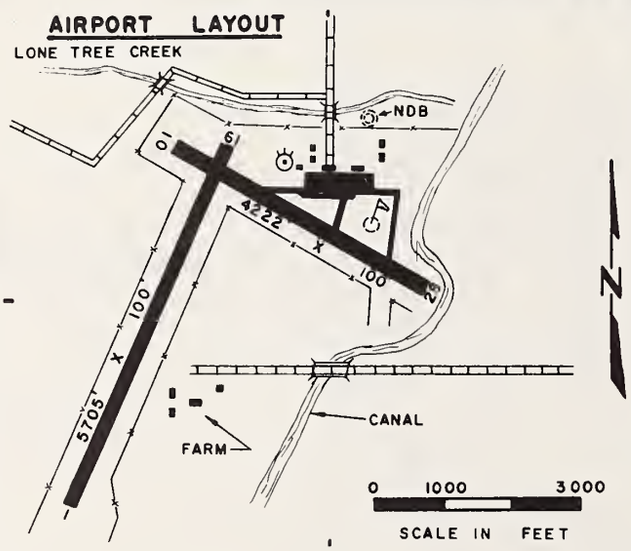
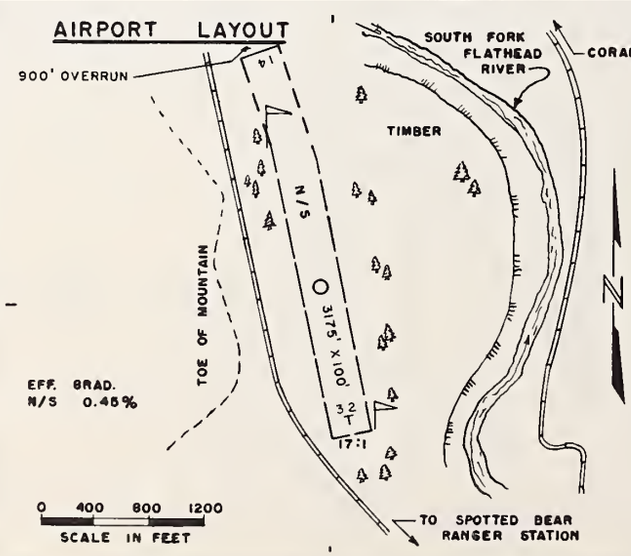
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	6.6	8.4	9.7	11.2	12.9	
Enplanements	4.6	6.2	7.5	9.1	11.0	
AIR CARRIER						Paving: Extend and resurface 16/34, taxiway and apron Land: Clear Zone, 16 & general development Lighting: Extend 16 MIRL Approach Aids: VASI-2, 16/34 Other: Relocate road, fencing, marking
Operations						
Enplanements						
TOTAL OPERATIONS	6.6	8.4	9.7	11.2	12.9	
GENERAL AVIATION						
Operation	.8	1.0	1.2	1.4	1.6	
Enplanements	.6	.7	.9	1.1	1.3	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.8	1.0	1.2	1.4	1.6	
GENERAL AVIATION						
Operations	.5	1.1	1.3	1.5	1.7	
Enplanements	.3	.8	1.0	1.2	1.4	
AIR CARRIER						Paving: Extend and pave 3/21, taxiway, apron Land: Clear Zone, 3/21, general development Lighting: MIRL 3/21 Approach Aids: VASI-2, 3/21 Other: Obstruction removal, powerline, fencing
Operations						
Enplanements						
TOTAL OPERATIONS	.5	1.1	1.3	1.5	1.7	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Roundup Airport Name: Roundup County: Musselshell				04/22 08/26 16/34	3450 x 50 3100 x 200 3000 x 200	Asph Turf Turf	NDB
Site No.	12489						
Elevation	3490						
Role	77	82					
System	F-3	F-3					
Operational	BU	GU					
City: Ryegate Airport Name: Ryegate County: Golden Valley				07/25	3440 x 100	Turf	
Site No.	12490.7						
Elevation	3700						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: St. Ignatius Airport Name: St. Ignatius County: Lake				08/26	2500 x 66	Asph	
Site No.	12491.3						
Elevation	2990						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

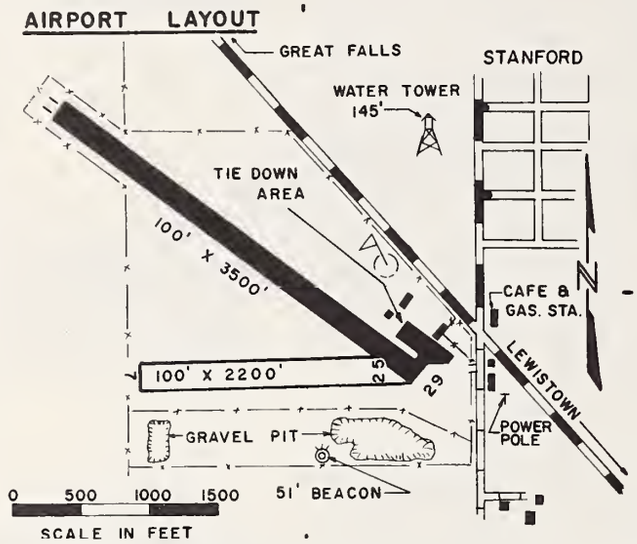
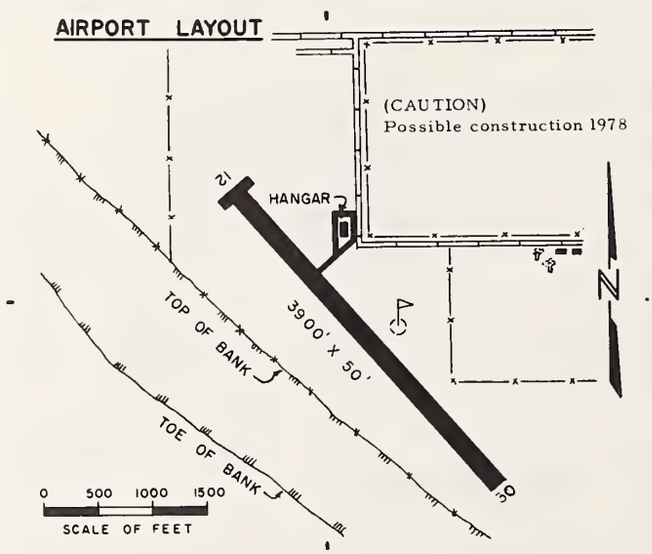
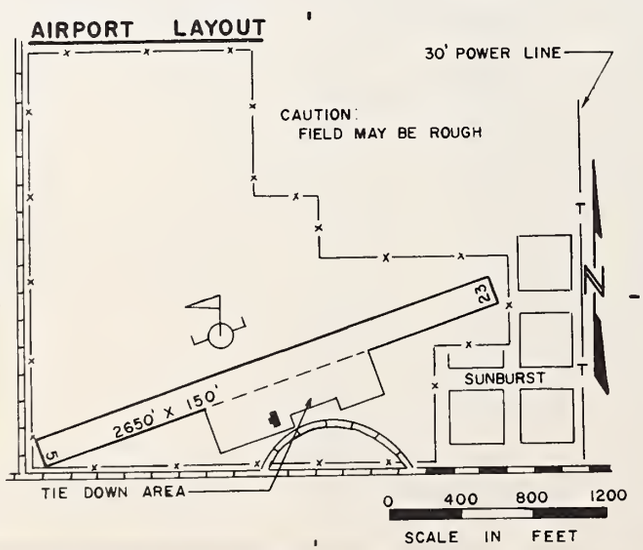
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	8.5	12.7	14.6	16.8	19.3	
Enplanements	6.0	9.3	11.2	13.7	16.5	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	8.5	12.7	14.6	16.8	19.3	
GENERAL AVIATION						
Operation	.2	.4	.5	.6	.7	
Enplanements	.1	.3	.4	.5	.6	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.2	.4	.5	.6	.7	
GENERAL AVIATION						
Operations	1.0	1.6	1.8	2.1	2.4	
Enplanements	1.0	1.2	1.4	1.7	2.1	
AIR CARRIER						
Operations						Acquire land and relocate road for possible future runway extension.
Enplanements						
TOTAL OPERATIONS	1.0	1.6	1.8	2.1	2.4	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Scobey Airport Name: Scobey County: Daniels				12/30	2800 x 75	Asphalt	NDB
Site No.	12495						
Elevation	2432						
Role	77	82					
System	F-3	F-2					
Operational	BU	BU					
City: Schafer Airport Name: Schafer County: Flathead				07/25	3300 x 200	Turf	
Site No.	12494						
Elevation	4855						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Seeley Lake Airport Name: Seeley Lake County: Missoula				16/34	3500 x 75	Turf	
Site No.	12496.1						
Elevation	4237						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

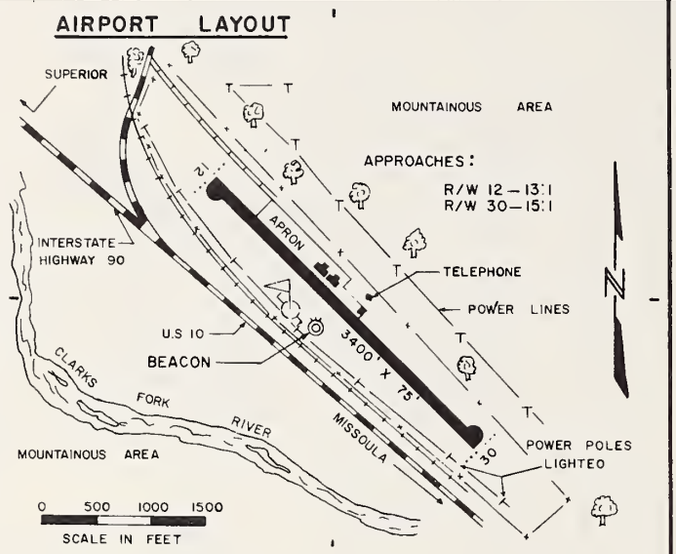
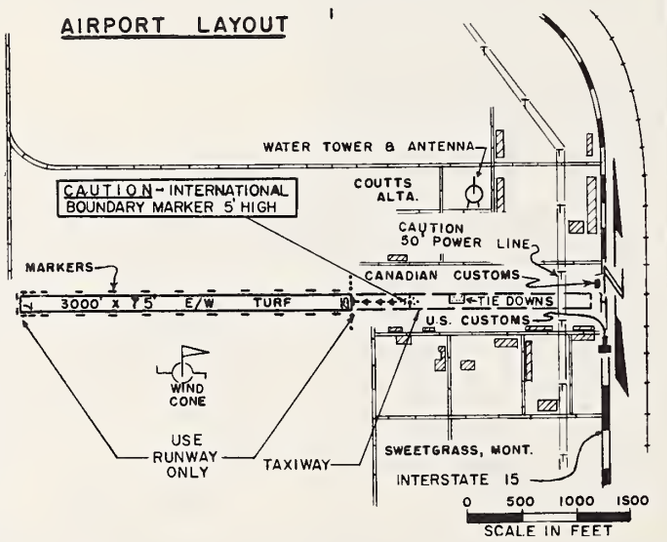
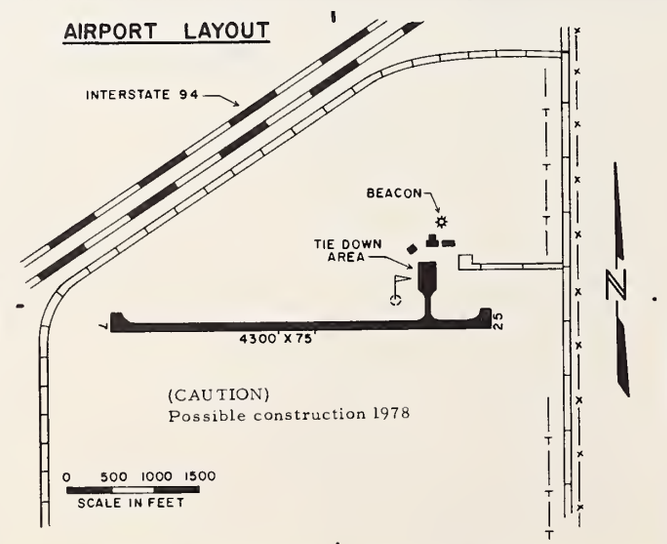
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	13.7	21.3	24.5	28.2	32.4	
Enplanements	9.0	14.9	17.8	21.5	26.0	
AIR CARRIER						Paving: Extend 12/30, apron, new taxiway Land: Clear Zone, 12/30, general development Lighting: MIRL, 12/30 Approach Aids: VASI-2, 30 Other: Fencing, marking, entrance road
Operations						
Enplanements						
TOTAL OPERATIONS	13.7	21.3	24.5	28.2	32.4	
GENERAL AVIATION						
Operation	.4	.4	.5	.5	.6	
Enplanements	.6	.6	.7	.9	1.0	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.4	.4	.5	.5	.6	
GENERAL AVIATION						
Operations	.2	.3	.5	.7	1.0	
Enplanements	.3	.4	.8	1.1	1.7	
AIR CARRIER						Paving: Pave 16/34
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.3	.5	.7	1.0	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Shelby Airport Name: Shelby County: Toole				05/23 11/29	4600 x 75 3100 x 60	Asph Asph	V2-L V2-L NDB
Site No.	12499						
Elevation	3434						
Role	77	82					
System	F-3	F-2					
Operational	BU	GU					
City: Sidney Airport Name: Richland Field County: Richland				01/19 10/28	5705 x 100 4222 x 100	Asph Asph	NDB
Site No.	12503						
Elevation	1983						
Role	77	82					
System	F-3	F-3					
Operational	C5	C5					
City: Spotted Bear Airport Name: Spotted Bear USFS County: Flathead				14/32	3175 x 100	Grvl.	
Site No.	12511						
Elevation	3670						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

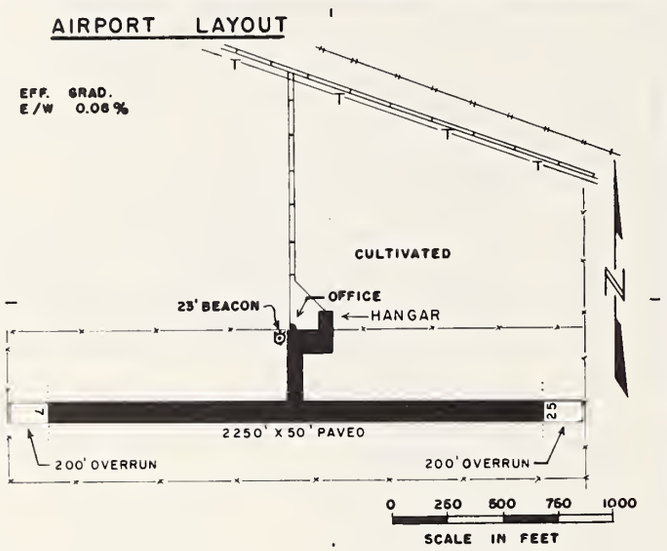
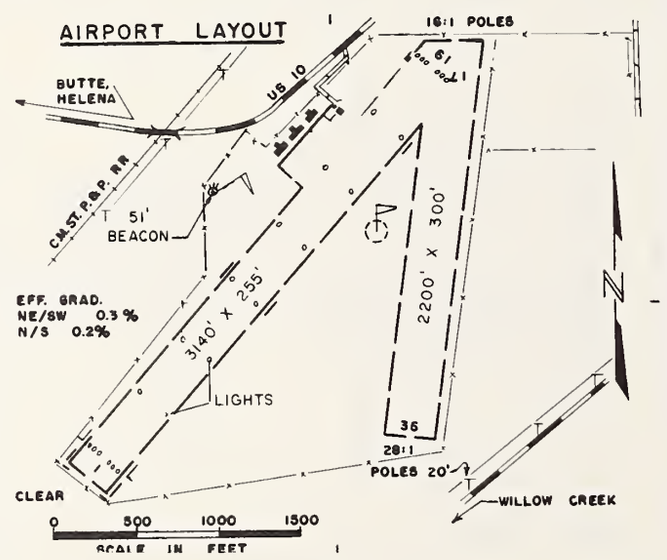
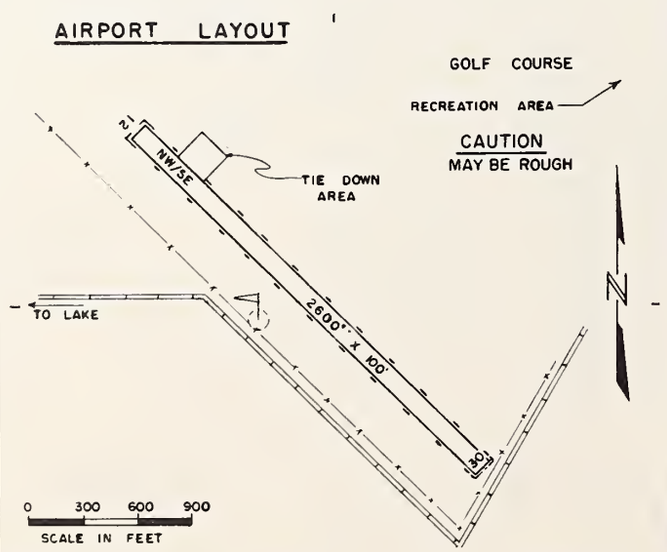
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	23.0	29.4	33.8	38.9	44.7	
Enplanements	16.0	21.6	26.1	31.6	38.2	
AIR CARRIER						Paving: Construct parallel taxiway Land: General development Lighting: MIRL, taxiway Approach Aids: VASI-2, 5/23 Other: Fencing, marking
Operations						
Enplanements						
TOTAL OPERATIONS	23.0	29.4	33.8	38.9	44.7	
GENERAL AVIATION						
Operation	21.3	27.8	32.0	36.8	42.3	
Enplanements	14.1	20.3	24.6	29.7	35.9	Paving: Resurface all pavement; construct additional paved parking apron (G.A.) Land: Clear Zone, 10/28; general development Lighting: MIRL, 10/28 Buildings: Construct new terminal building Approach Aids: VASI-2, 10/28, 1/19; REILS, 1/19 Other: Obstruction removal
AIR CARRIER						
Operations	1.2	1.2	1.2	1.2	1.2	
Enplanments	1.4	1.4	1.4	1.4	1.4	
TOTAL OPERATIONS	22.5	29.0	33.2	38.0	43.5	
GENERAL AVIATION						
Operations	.2	.2	.2	.3	.3	
Enplanements	.3	.3	.4	.4	.5	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.2	.2	.3	.3	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Stanford Airport Name: Stanford County: Judith Basin				07/25 11/29	2200 x 100 3500 x 100	Turf Asph	
Site No.	12512						
Elevation	4285						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Stevensville Airport Name: Stevensville County: Ravalli				12/30	3900 x 50	Asph	
Site No.	12513						
Elevation	3620						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Sunburst Airport Name: Sunburst County: Toole				05/23	2650 x 150	Turf	
Site No.	12514						
Elevation	3399						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

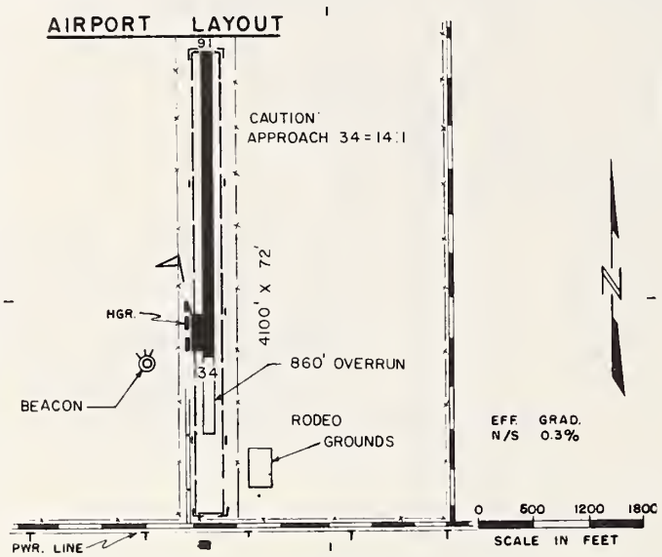
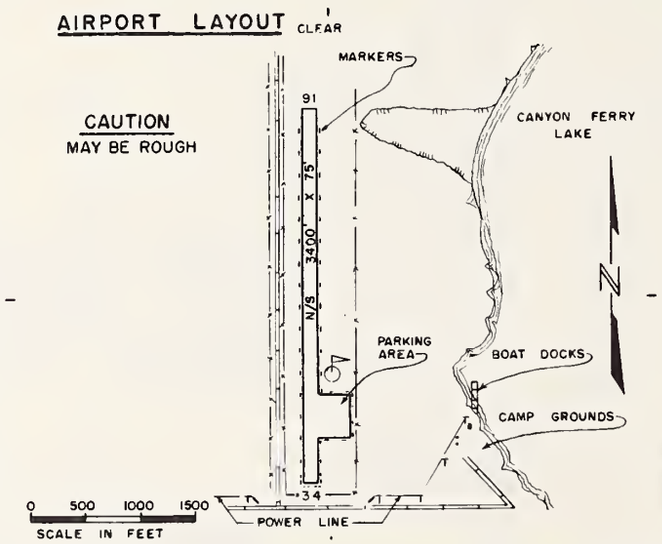
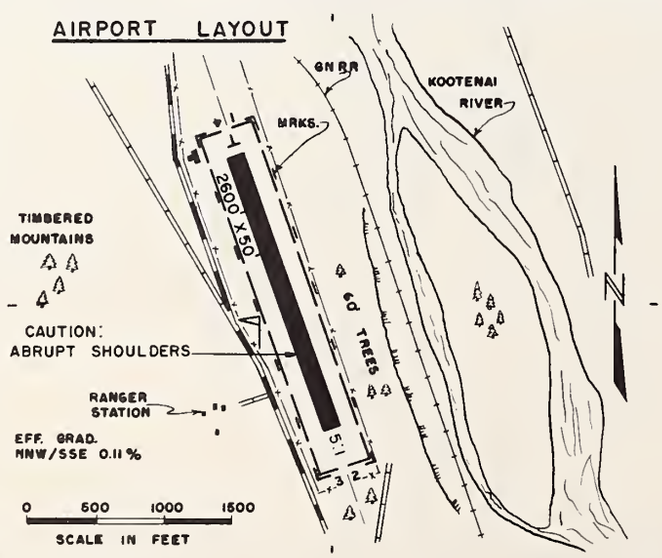
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	2.8	3.4	3.9	4.5	5.2	
Enplanements	2.0	2.5	3.0	3.7	4.4	
AIR CARRIER						Paving: Resurface 11/29, taxiway apron Land: Clear Zone, 11/29, general development Lighting: MIRL, 7/25, 11/29 Approach Aids: VASI-2, 7/25, 11/29 Other: Obstruction removal, powerline, fence, marking
Operations						
Enplanements						
TOTAL OPERATIONS	2.8	3.4	3.9	4.5	5.2	
GENERAL AVIATION						
Operation	7.6	9.1	10.5	12.1	13.9	
Enplanements	5.3	6.7	8.0	9.8	11.9	
AIR CARRIER						Paving: Realign and pave 12/30, taxiway, apron Land: Clear Zone, 12/30, general development Lighting: MIRL Approach Aids: VASI-2, 12/30, REILS, both ends Other: Fencing, marking
Operations						
Enplanments						
TOTAL OPERATIONS	7.6	9.1	10.5	12.1	13.9	
GENERAL AVIATION						
Operations	.1	.2	.4	.4	.5	
Enplanements	.1	.3	.6	.6	.8	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.2	.3	.4	.5	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Superior Airport Name: Mineral County County: Mineral				12/30	3400 x 75	Asph	
Site No.	12516.1						
Elevation	2777						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Sweetgrass Airport Name: Ross International County: Toole				07/25	3000 x 75	Turf	
Site No.	12518						
Elevation	3550						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Terry Airport Name: Terry County: Prairie				07/25	4300 x 75	Asph	
Site No.	12523						
Elevation	2260						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

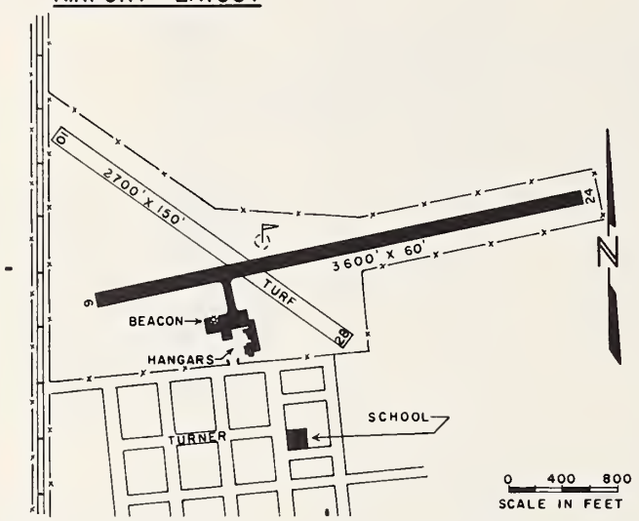
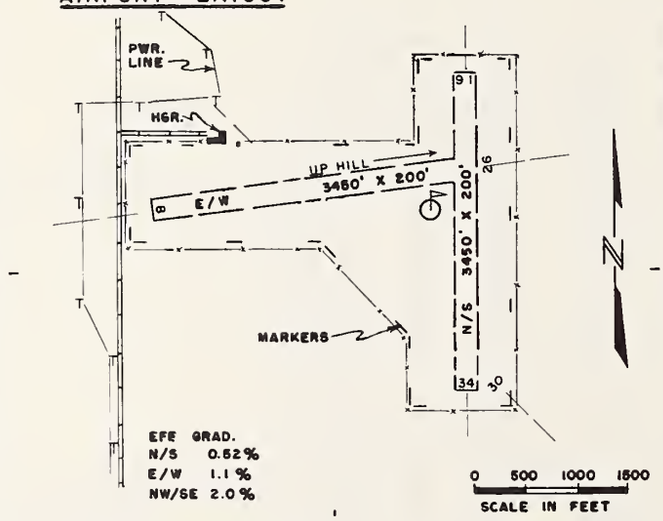
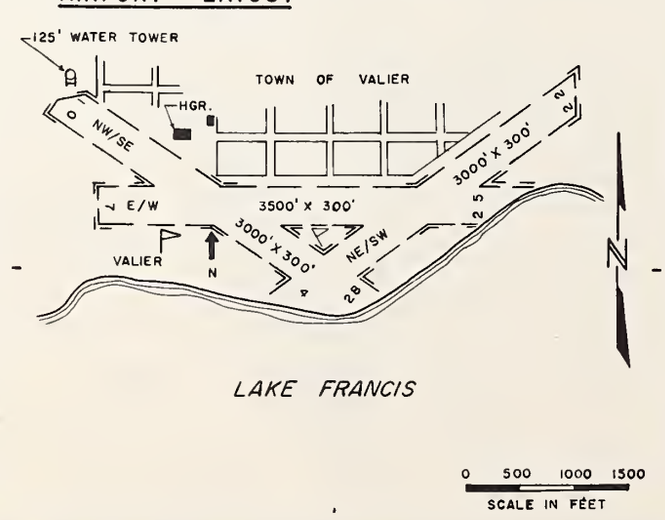
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	.8	1.3	1.5	1.7	2.0	
Enplanements	.7	1.0	1.3	1.5	1.8	
AIR CARRIER						Paving: Resurface 12/30, apron, taxiway Lighting: MIRL, 12/30 Approach Aids: VASI-2, 12/30 Other: Obstacle removal, trees, marking
Operations						
Enplanements						
TOTAL OPERATIONS	.8	1.3	1.5	1.7	2.0	
GENERAL AVIATION						
Operation	.3	.4	.5	.5	.6	
Enplanements	.4	.6	.7	.9	1.0	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.3	.4	.5	.5	.6	
GENERAL AVIATION						
Operations	2.8	3.0	3.6	4.4	5.2	
Enplanements	1.4	4.4	5.3	6.5	7.8	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	2.8	3.0	3.6	4.4	5.2	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Thompson Falls Airport Name: Thompson Falls County: Sanders				07/25	2250 x 50	Asph	
Site No.	12525						
Elevation	2460						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Three Forks Airport Name: Three Forks County: Gallatin				01/19 17/35	3140 x 255 2200 x 300	Turf Turf	
Site No.	12529						
Elevation	4081						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Tiber Dam Airport Name: Tiber Dam County: Liberty				12/30	2600 x 100	Turf	
Site No.	12529.4						
Elevation	3012						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

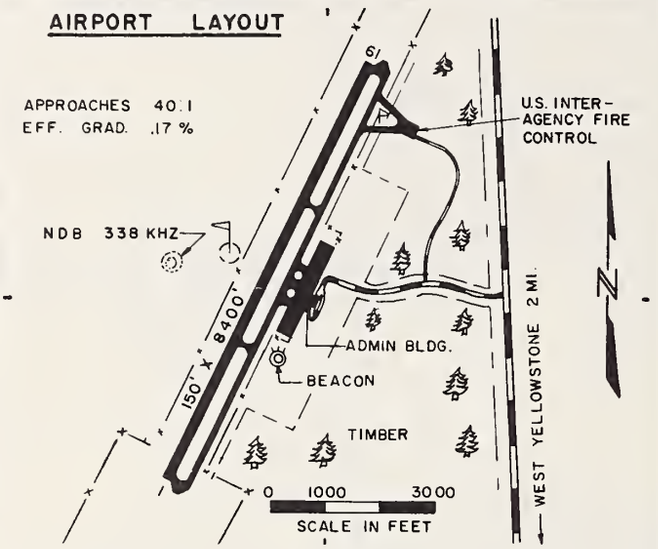
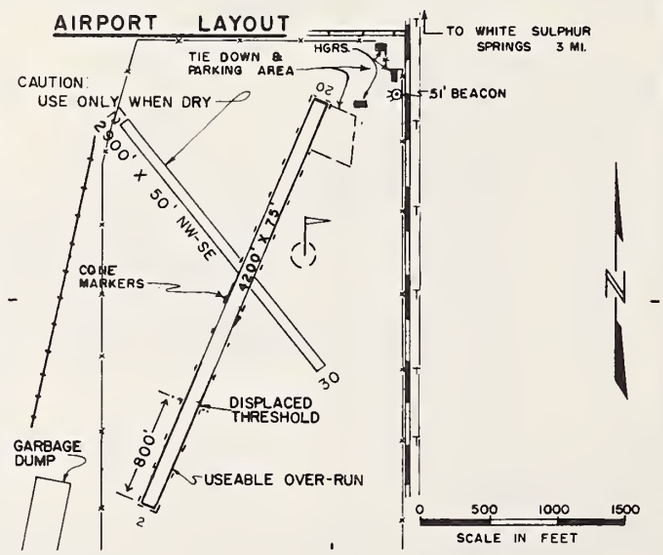
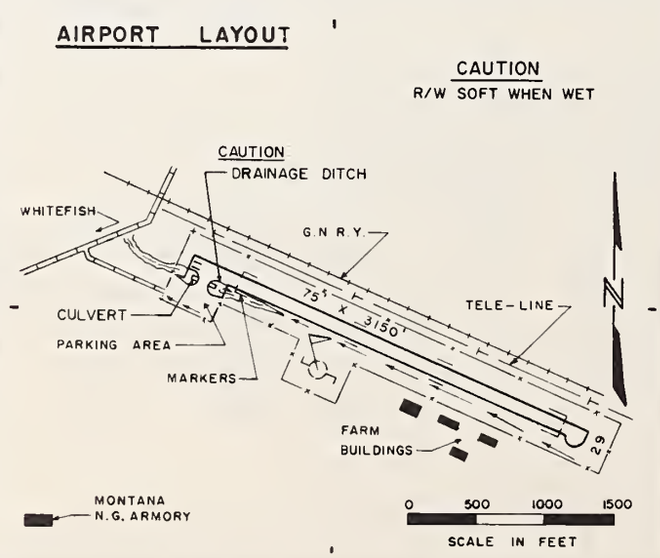
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	5.0	7.3	8.4	9.7	11.2	
Enplanements	3.5	5.4	6.5	7.9	9.6	
AIR CARRIER						Paving: Extend 7/25, taxiway, apron Land: Clear Zone, 7/25, general development Lighting: MIRL, 7/25 Approach Aids: VASI-2, 7/25 Other: Fence, marking
Operations						
Enplanements						
TOTAL OPERATIONS	5.0	7.3	8.4	9.7	11.2	
GENERAL AVIATION						
Operation	3.5	4.5	5.2	6.0	6.8	
Enplanements	2.5	3.2	3.9	4.7	5.7	
AIR CARRIER						Paving: Construct new taxiway & apron, construct new BU runway Land: Acquire land Lighting: MIRL, 1/19
Operations						
Enplanments						
TOTAL OPERATIONS	3.5	4.5	5.2	6.0	6.8	
GENERAL AVIATION						
Operations	.1	.2	.4	.6	.8	
Enplanements	.1	.3	.6	1.0	1.4	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.2	.4	.6	.8	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Townsend Airport Name: Townsend County: Broadwater				16/34	4100 x 72	Asph	
Site No.	12531						
Elevation	3900						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Townsend Airport Name: Canyon Ferry County: Broadwater				16/34	3400 x 75	Turf	
Site No.	12531.1						
Elevation	4000						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Troy Airport Name: Troy USFS County: Lincoln				14/32	2600 x 50	Asph	
Site No.	12534						
Elevation	2017						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

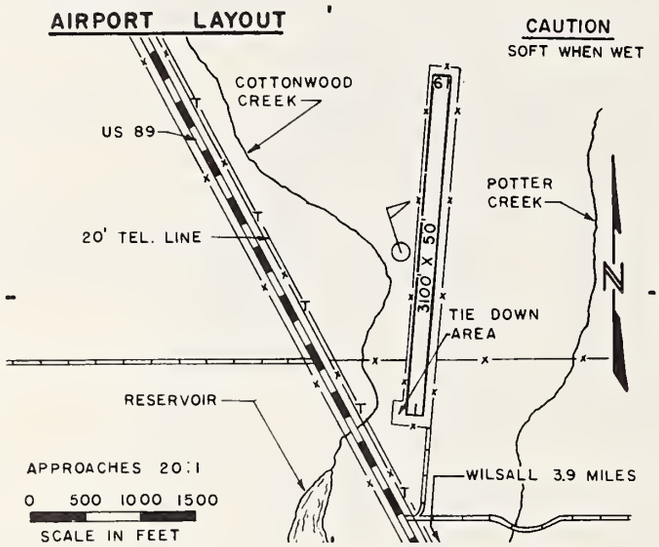
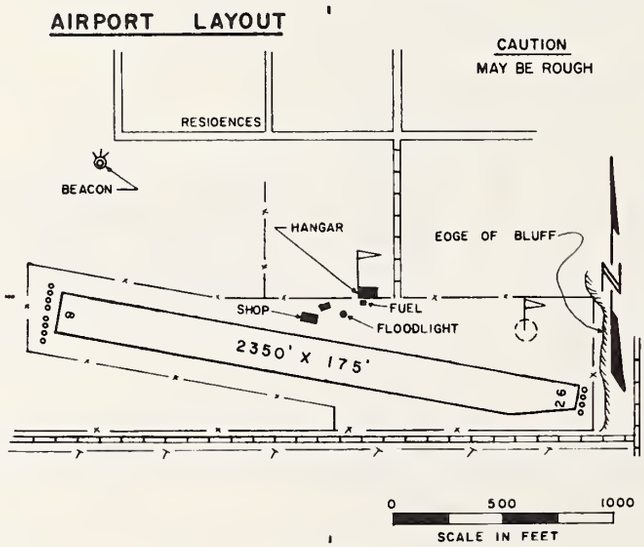
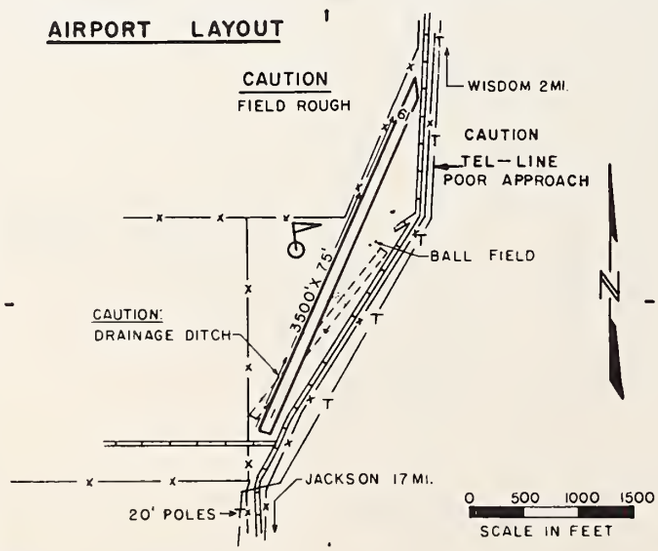
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	3.0	4.3	4.9	5.6	6.4	
Enplanements	2.1	3.2	3.8	4.6	5.5	
AIR CARRIER						Paving: Extend and resurface 16/34, new taxiway, apron Land: Clear Zone, general development Lighting: MIRL, 16/34 Approach Aids: VASI-2, 16/34 Other: Obstruction removal, fencing, marking
Operations						
Enplanements						
TOTAL OPERATIONS	3.0	4.3	4.9	5.6	6.4	
GENERAL AVIATION						
Operation	.2	.4	.5	.6	.7	
Enplanements	.3	.6	.8	1.0	1.2	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.2	.4	.5	.6	.7	
GENERAL AVIATION						
Operations	.3	.5	.6	.7	.8	
Enplanements	.3	.4	.5	.6	.8	
AIR CARRIER						Land: Acquire land for future extension
Operations						
Enplanements						
TOTAL OPERATIONS	.3	.5	.6	.7	.8	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Turner Airport Name: Turner County: Blaine			AIRPORT LAYOUT 	6/24 10/28	3600 x 60 2700 x 150	Asph Turf	
Site No.	12535						
Elevation	3052						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Twin Bridges Airport Name: Twin Bridges County: Madison			AIRPORT LAYOUT 	08/26 16/34	3450 x 200 3450 x 200	Grvl Grvl	
Site No.	12537						
Elevation	4472						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Valier Airport Name: Valier County: Pondera			AIRPORT LAYOUT 	04/22 07/25 10/28	3000 x 300 3500 x 300 3000 x 300	Turf Turf Turf	
Site No.	12540						
Elevation	3820						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

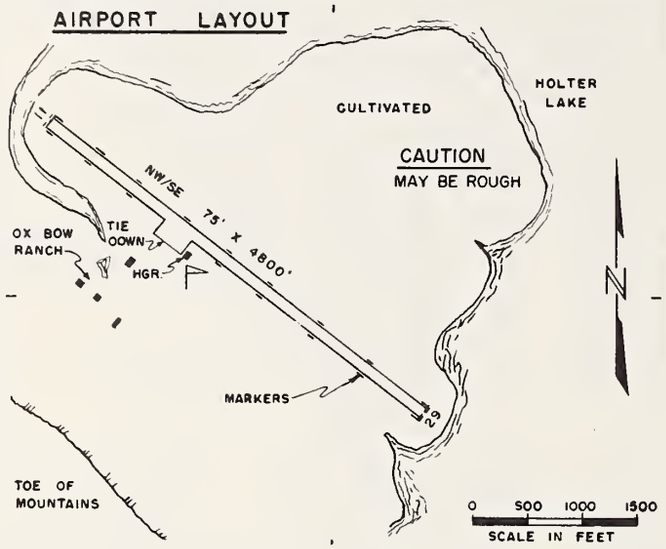
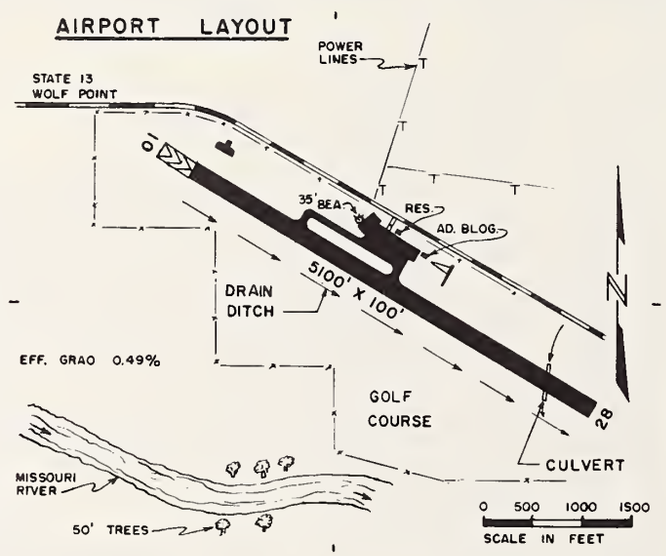
TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	3.4	4.0	4.6	5.3	6.1	
Enplanements	2.4	2.9	3.5	4.3	5.2	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	3.4	4.0	4.6	5.3	6.1	
GENERAL AVIATION						
Operation	.9	1.1	1.3	1.5	1.7	
Enplanements	.7	.9	1.1	1.3	1.6	
AIR CARRIER						Paving: New 16/34, taxiway, apron Land: CZ, 16/34, general development Lighting: MIRL, 16/34 Approach Aids: VASI-2, 16/34 Other: Fence, marking
Operations						
Enplanments						
TOTAL OPERATIONS	.9	1.1	1.3	1.5	1.7	
GENERAL AVIATION						
Operations	3.4	4.9	5.6	6.5	7.5	
Enplanements	2.4	3.5	4.3	5.2	6.2	
AIR CARRIER						Paving: Pave 7/25, taxiway, apron Land: Clear Zone 7/25, general development Lighting: MIRL, 7/25 Approach Aids: VASI-2, 7/25 Other: Obstruction removal, trees, fence, marking
Operations						
Enplanements						
TOTAL OPERATIONS	3.4	4.9	5.6	6.5	7.5	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: West Yellowstone Airport Name: Yellowstone County: Gallatin				01/19	8400 x 150	Asph	V4-L ILS
Site No.	12549.1						
Elevation	6644						
Role	77	82					
System	F-3	F-3					NDB
Operational	B3	B3					
City: White Sulphur Springs Airport Name: White Sulphur Springs County: Meagher				02/20	4200 x 75	Asph	
Site No.	12558.1						
Elevation	5060						
Role	77	82		12/30	2900 x 50	Turf	
System	F-3	F-3					
Operational	BU	BU					
City: Whitefish Airport Name: Whitefish County: Flathead				11/29	3150 x 75	Turf	
Site No.	12552.1						
Elevation	3063						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN Recommended Development Action
	77	82	87	92	97	
GENERAL AVIATION						
Operations	3.3	5.8	6.7	7.7	8.8	
Enplanements	3.2	5.6	6.8	8.1	9.1	
AIR CARRIER						Paving: Reinforce 1/19 Other: Fencing, marking
Operations	.9	.9	.9	.9	.9	
Enplanements	10.1	10.6	11.1	11.7	12.3	
TOTAL OPERATIONS	4.2	6.7	7.6	8.6	9.7	
GENERAL AVIATION						
Operation	3.0	5.0	5.8	6.6	7.6	
Enplanements	2.1	3.7	4.4	5.4	6.5	
AIR CARRIER						Paving: Reconstruct 2/20 to BU standards Land: Clear Zone, 2/20 Lighting: MIRL, 2/20 Approach Aids: VASI-2, 2/20 Other: New road, marking
Operations						
Enplanments						
TOTAL OPERATIONS	3.0	5.0	5.8	6.6	7.6	
GENERAL AVIATION						
Operations	.2	.4	.5	.6	.7	
Enplanements	.1	.3	.4	.5	.6	
AIR CARRIER						Paving: Construct additional parking apron
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.4	.5	.6	.7	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length Width	Surface	
City: Wilsall Airport Name: Wilsall County: Park				1/19	3100 x 50	Turf	
Site No.	12565.3						
Elevation	5095						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Winifred Airport Name: Winifred County: Fergus				08/26	2350 x 175	Turf	
Site No.	12565.8						
Elevation	3300						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Wisdom Airport Name: Wisdom County: Beaverhead				01/19	3500 x 75	Turf	
Site No.	12571						
Elevation	6126						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	.2	.2	.2	.3	.3	
Enplanements	.3	.3	.4	.4	.5	
AIR CARRIER						Improve automobile access road and aircraft parking areas
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.2	.2	.3	.3	
GENERAL AVIATION						
Operation	.5	.7	.8	.9	1.1	
Enplanements	.4	.6	.7	.9	1.0	
AIR CARRIER						No recommended development
Operations						
Enplanments						
TOTAL OPERATIONS	.5	.7	.8	.9	1.1	
GENERAL AVIATION						
Operations	.2	.2	.2	.3	.3	
Enplanements	.3	.3	.4	.4	.5	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.2	.2	.2	.3	.3	

BASE INFORMATION			AIRPORT LAYOUT	RUNWAY DATA			NAV-AIDS
				Runway	Length x Width	Surface	
City: Wolf Creek Airport Name: Ox Bow Ranch County: Lewis & Clark				11/29	4800 x 75	Turf	
Site No.	12401.1						
Elevation	3635						
Role	77	82					
System	F-3	F-3					
Operational	BU	BU					
City: Wolf Point Airport Name: Wolf Point International County: Roosevelt				10/28	5100 x 100	Asph	NDB
Site No.	12573						
Elevation	1985						
Role	77	82					
System	F-3	F-3					
Operational	C5	C5					
City: Airport Name: County:							
Site No.							
Elevation							
Role	77	82					
System							
Operational							

TYPE OF ACTIVITY (000's)	EST	FORECAST				FIVE-YEAR NEEDS PLAN
	77	82	87	92	97	Recommended Development Action
GENERAL AVIATION						
Operations	.1	.2	.2	.3	.3	
Enplanements	.1	.3	.4	.4	.5	
AIR CARRIER						No recommended development
Operations						
Enplanements						
TOTAL OPERATIONS	.1	.2	.2	.3	.3	
GENERAL AVIATION						
Operation	9.1	11.4	13.1	15.1	17.4	
Enplanements	6.4	8.4	10.1	12.3	14.9	
AIR CARRIER						Paving: Construct additional paved parking apron (G.A.); new 1/19 Land: Clear Zone 1/19; general development Lighting: MIRL, 1/19, taxiway Buildings: Construct new terminal building Approach Aids: VASI-2, 1/19, 10/28; REIL, 10
Operations	1.2	1.2	1.2	1.2	1.2	
Enplanments	1.1	1.4	1.4	1.4	1.4	
TOTAL OPERATIONS	10.3	12.6	14.3	16.3	18.6	
GENERAL AVIATION						
Operations						
Enplanements						
AIR CARRIER						
Operations						
Enplanements						
TOTAL OPERATIONS						